

# OF MATTER AND MIND



HENRY VAN ZEYST



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# From the Publisher

This is the second posthumous publication of the writing of Henri Van Zeyst undertaken by the Public Trustee Department. ‘Awareness in Buddhist Meditation’ was the other which was previously published. The two manuscripts of these unpublished books were handed over to me, personally, by Mr Henri Van Zeyst in 1986 with instructions to have them posthumously printed and published with the funds available in his investments. He passed away on 15th September 1988.

As Trustee of Henri Van Zeyst Trust I am glad that I was able to fulfil his desire in publishing these two books for the benefit of his readers.

May the blessings of these meritorious acts be throughout with late Henri Van Zeyst in his journey in samsara until his final enlightenment!

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# Preface

Evolution is not just a new-fangled theory, less than 100 years old. When Darwin developed his thesis on the biological evolution of the human species, it was promptly rejected by the scientific world of his day under the influence of vested spiritual interests of the established Church.

Evolution is not a theory of some physicists and biologists who need an explanation for their materialistic world-concept without the beginning of a creation. Evolution does not take the place of creation in the beginning of the world, but it is a process that has been going on even when there was no time, that is, when there was no mental concept trying to measure the movement of matter. Evolution is not ‘in the beginning’, but it is always there in everything that changes, in everything that becomes, grows, exists, lives and dies. It is a process of change that the Buddha took as a pivot for his doctrine more than 25 centuries ago, a process of change, in which all that becomes also ceases, where all that appears as individual is totally dependent in its appearance, continuance and disappearance, where there is no static entity or energy to remain the same under the changing phenomena.

Change may be for better or for worse, depending on the viewpoint of the onlooker. And so, evolution which is growth may become an involution of decay, as life leads to death. Then, when life becomes death, death itself becomes the source of new life. The

disintegration of a star may be the beginning of a nova, a new solar system with its planets and satellites, with new forms of existence under new conditions.

Such is evolution, not in the beginning, but always evolving and involving, unfolding and folding up, unrolling (*vivatta*) and rolling up (*sarivatta*), which was known to the ancients, who viewed the universe itself as expanding and shrinking. Such is life as we know it in the narrow circle of our experiences.

It is of that evolution that these pages will speak, not of just a species, but of the entire process of existence, pursuing matter in its deepest folds, exposing the mind in its most extravagant fancies.

In the teaching of the Buddha which is analytical (*vibhajja-vāda*) to its extremes, this pursuit was necessitated by certain views which adhered, then as now, to individualistic theories of permanence in concepts of substance, or soul, or God, of matter or mind. It is then the analysis of existence, physical as well as mental, which will be the basic scheme of these pages, following the process of evolution step by step from matter to mind, as outlined in the Buddha's philosophy called Abhidhamma, which follows his basic doctrine, the Dhamma, just as metaphysics evolved from physics, as mind evolved from matter.

# Introduction

Before beginning a detailed study, physically, logically, emotionally, spiritually, psychologically, of such things as matter and mind, one must bear in mind that these are abstract concepts to which one has given a concrete meaning, resulting in providing those concepts with a reality which is not their own. Our language has been formed in such ways to reflect our ways of thinking, as is evident already in the first sentence of these introductory remarks. I said ‘one must bear in mind’, as if the mind is the receptacle, the storehouse, of concepts. It is the way we have learned to look at mind, as if it were some thinking machine which turns out thoughts, ideas, ideals, sense or non-sense. That machine may function correctly as a printing press, and yet turn out utter rubbish, lustful and hateful thoughts. Such a view would lead logically to the conclusion that the mind may or may not produce thoughts at all, that the mind could lay idle or work overtime. Such is the idea, that the mind is something, some internal organ which, even if it does not function, yet has an existence of its own. This way of looking at things as entities, at persons, as individuals, at events, as facts, is an approach which has resulted in systems of philosophy, in schools of thought, in religious organisations, based on the concept of an idea which is not more than the shadow of a reflection, if there would be such a thing at all. It is not only one’s concept of the mind as a thought-producing factor or factory, but even one’s concept of solid matter,

that has been evolved in that same process of thinking. The psychological conditions which necessitated this outlook will be dealt with throughout this book, together with the psychological necessities maintaining this view and approach. At this introductory stage there is only the warning that things may not always be as they appear to be. To find out the truth of the matter, in matter and mind, is the background of these investigations, which will span the entire cosmos of the individual: the nature of its physical composition (*rūpa*); the contact with, and the impact on, the physical senses (*vedanā*), as extension of the play of interaction between material objects; the individual reaction in perception (*saññā*) of such activity; the formation of concepts (*saṅkhāra*) which are ideations about the reactions retained in memory; and also the process of active thought in consciousness (*viññāṇa*), which appropriates and develops the process as pertaining to a 'self', to continue and project its existence in an ideal future. These five aggregates of existence (*pañcakkhandha*), then, constitute the basic outline of the lay-out of this book. It is matter as seen by mind; it is mind as reacting to matter.

# Part 1: Matter

## On Matter in General

Everybody knows what matter is and how to deal with it; but when it comes to putting that knowledge in exact terminology, it is not so easy.

Matter is that of which physical things are made. This definition from the dictionary is not very instructive as long as we do not know what physical things are made of. The science of physics deals with the properties of matter and energy, with the actions and reactions of different forms of energy (excluding chemistry and biology). The sciences deal with properties which are qualifications and modalities, all relating to the nature of the thing which is being studied or investigated. But, so far, not a word about the nature of matter itself.

This is not a new problem, for the ancient Greeks were already faced with it, when they gave a name to matter, calling it ‘phusis’, a word which we still use as ‘physic’, meaning that which belongs to nature, to the nature of the thing. And so, physical exercises belong to the training and drilling of the body, not of the mind; physical energy is opposed to moral energy which deals with spiritual discipline and conduct, of which ‘nature’ has no knowledge.

Matter, then, is nature in its natural state. But one does not come across nature in its natural state, but only nature in its active

way and one's reaction thereto. Matter is known in its action and reaction to contact. Action is its nature. The properties of matter may be deduced from observations of contact and the results thereof, but those properties do not constitute the nature of matter.

Although easily observable in some instances, it is not always easy to make such distinction. Sugar is sweet, which is a fact only when it is tasted. In the pot, sugar is not sweet; but in contact with some of the 3000 taste-buds on the tongue there is an interpretation of that reaction which is now labelled 'sweetness'. Sweetness is then not a property natural to sugar; it is not a property at all; it is just an interpretation of a reaction.

That this reaction is observed by many, or even by all, who taste, does not alter the fact or the nature of matter.

Still, as far as the reaction is concerned, there is nothing else that the mind can observe. And thus, as far as knowledge goes, it will always be bound to the knowledge of reactions, even though it is known that reaction is not the nature of the thing. One shall have ample opportunity to revert to these ideas in subsequent chapters, when dealing with sense-perceptions and ideations.

For those who came in contact with matter, who react to that contact, and who want to know what it is, we have a rather good definition of matter and its chief characteristic in the Buddhist texts where matter is etymologically described as 'appearance' (*rūpatī'ti rūpam*) referring to its essentially phenomenal nature. Matter is phenomenal. What appears to be solid and static is as kinetic as energy. Things are not what they appear to be; and yet it is their appearance, their formal presentation, which constitutes the point of contact on which all mental representation is based. That is, admittedly, not much of a basis, an apparent solidity which turns out to be as volatile as energy. But it presents a basis of contact with the senses, a perception, from which can arise a concept. It is for us to understand its basically impermanent and phenomenal nature, and use that as a working hypothesis.

An analysis of objects in their physical appearance and chemical composition may lead to deeper knowledge of matter as molecules, as atoms, as positive and negative charges of electronic energy; but that will still be the appearance of its working, its activity. To know what matter is, one must know what appearance is; one must know the phenomenon which is the energy which makes matter appear what it seems to be.

What is it that makes stones hard, that makes the mountains stand for ever; what is it that makes the fire burn, and what makes water wet? What is it that makes matter appear to be so material? And is there anything underneath those appearances which deserves the name of substance, which stands under and supports those phenomena? Is there any permanent entity or being, which holds these impermanent phenomena together?

If one could thus analyse a single rock, one would have solved the entire riddle of this universe. But we have nothing to go by, apart from our contacts and experiments. I only know a stone is hard, when it hurts my foot when I kick it.

That means that I do not know hardness at all, but only my reaction to it. I can pulverise the stone and crush it into dust.

But I have only made the particles so small that they cannot hurt my big toe. Yet, the matter has not changed essentially, and each particle is as hard as the rock before.

This study of matter must go deeper into the very nature of matter. An analysis of the human body into 32 parts: hair, skin, nails, teeth, bones, phlegm, urine, marrow, etc. may be useful as an exercise for mental concentration leading to detachment, but it does not bring an understanding of the component parts. For, they too still remain the phenomena of matter, as it appears to the naked eye or under the microscope, or as a chemical analysis into calcium, nitrogen, etc. For, those elements, too, are still appearances of matter, phenomena, which we only know because they act on contact and because of our reaction thereto.

It would seem therefore, that knowledge, however perfect, cannot penetrate deep enough. It is the end of the road of science, a marvellous road, no doubt, with unexpected vistas of an ever-expanding universe, of a microscopic reflection of a cosmos, with knowledge of phenomena which ultimately can tell us only that matter is a phenomenon, as it appears (*rūpaṭī'ti rūpaṇi*).

That, however, is a fact which is not acceptable by either science or philosophy. The problems which face them arise basically from their approach to, and from the subsequent views on, the constitution of matter. It is the difference in approach which brings out the sharp distinction in their speculations on matter and mind. Chemistry considers the atoms of the elements as the ultimate make-up of the universe.

For, though science has progressed since the atomic theory was accepted, and though now the atom is not considered anymore as an ultimate which is indivisible in itself, still the atom forms the smallest possible piece of any of the 92 or more elements discovered so far, beyond which analysis is not elemental, as it dissolves matter into energy.

Metaphysics have developed a system 'beyond physics', and have tried to discover a 'materia prima', a primal matter to which all elementary qualities are supposed to have been added. And thus they accept, apart from matter together with its accidental phenomena, a primal matter, indeterminate, formless and without attributes, which they call the substance, as it stands below and thus upholds the changing phenomena of matter, which are experienced as mechanical, chemical, electrical or organic phenomena.

It is this idea of a substratum underlying all phenomena which has led to the animate concept of matter and which is chiefly responsible for all theories of 'soul' (*anima*, *ātma*).

And as this problematic theory is the basis of all problems and conflicts (as we may see later), it is of the utmost importance to understand the nature of matter.



Matter, then, from a Buddhist viewpoint, which is the natural viewpoint of nature without admixture of the preternatural or the super-natural, does not lie beyond the domain of the senses. That does not make of matter something unchangeable, or stable, or real in the sense of independent of conditions. Matter is, therefore, not absolute in its existence, but relative in its action. Matter is action, matter is change, matter is a process of evolution and involution. Thus, matter is that which appears to be (*ruppatī'ti rūpaṃ*). It is this phenomenal appearance of matter in its essential changeability which gave it its name and which defines its action. Change is its essence, and its nature is disappearing in the process of changing phenomena. It is actuality.

Matter is a material element as conceived in the senses which are reactive to its actuality, while the senses themselves are the different forms of the same energy which we claim for matter. Matter is then the external, but only in so far as it affects the internal, although that very division might lead to misunderstanding, both being aspects of energy. Matter is the passive side of life in which the mind plays the active part; but it is not so-called dead matter, considered in itself. Nothing can be considered in itself, for that too is a mental activity in relationship of observation. Matter may be seen as the object of a subjective mind, but that very objectivity of the passive aspect of action is in actuality the aim of action, the purpose of action, the stimulus for reaction, which makes of the so-called subject merely a reaction, dependent in its origination and in its cessation on the conditioning influence of the object. Hence there is a dependent simultaneous origination (*paṭicca-samuppāda*) which is the process of becoming and ceasing, of evolution and involution, of birth and death.

Physical elements, whether considered in the microcosm of the atom, held together by the positive and negative complexity of protons constituting the nature of the element, or when seen at work in the solar system with its planets, satellites and moons, or in an

ever-expanding universe with solar systems in formation or disintegrating, it is matter as a form of energy, of different forces at work which cannot exist individually and separately. It is the energy which constitutes matter; and it is the actuality of that energy which is experienced in its different forms, received by contact in the senses, perceived and classified by memory, formulated in mental ideations, to which the mind as thought reacts with thought and knowledge.

It is not quite a synthesis of mind and matter as a fusion, an amalgamation of two elements, a conflux of two rivers, even though such similes are sometimes helpful to obtain an initial view of the process. It is not an interaction of two distinct entities, brought into a relationship of contact and conditioning. Here we have a doctrine of becoming and re-becoming and ceasing to become; of birth which is life, rebirth which is death, and no-more-becoming which is Nibbāna. It is in this process of becoming that life is not only equal to death, but is identical with it. And in this light should be seen, therefore, any aspect which for purpose of analysis may appear static momentarily, but which in actuality is nothing but a process of becoming and ceasing, of evolution and involution, of affirmation and denial, all at the same time.

Creation is to be seen no more as a historical fact in the beginning, but as a continued dynamic support in movement, in growth, in evolution. The 25 century old Buddhist concept of evolving world-cycles is that of the external force of causation and the inner urge of reproduction. The external force is sometimes still personified and deified, while the inner urge is the expression of a natural disposition, composition and decomposition. Naturally, not supernaturally, inner urges, impelling forces, innate tendencies, will meet other growing interests, with which they will amalgamate or come in conflict, thereby setting up new combinations, spheres of influence, centres of resistance, sometimes passive, sometimes leading to active conflict, conquest or loss, rebirth or death.

It is not a process of reproduction of a separate entity, but rather a remodelling of energy under new influences. A poet continues to live in his poems, and his influence may thus endure for many centuries. It is the continued process of action and reaction, where the action does not produce a reaction, but becomes the reaction, something like several drinks making one drunk.

It is in distinguishing between matter and mind that lies the danger which is much more than potential, for it is very actual, factual, and almost real : the danger of thinking of matter in its inorganic state as something dead, and of thinking of the mind as something vital; and of thinking of both as some sort of combination: the mind living in and working with the body as its instrument, a combination which is life, and which in separation becomes death, after which each goes its own way: the body to corruption, and the mind as soul to life eternal.

To understand man as a phenomenon in the world of events, he must be understood as a part there of, not as its centre, its masterpiece, its culmination—in a way similar to the understanding of the movements of the earth which can only be brought about if the earth is no longer considered as the centre of attraction in the solar system.

The phenomena of matter and mind, therefore, should be seen in the totality of one process of dependent origination, rather than individual creation. In the beliefs of animistic and theistic religions, however much this concept of evolution is being adopted in the present, there will always be for them a point in time when the growth of evolution was set in motion: the beginning of time, the act of creation, the passing from the static to the dynamic, when the absolute became the relative and thereby ceased to be God.

To obtain a coherent picture of the synthetic process of what has been split by artificial fissure into the distinction of matter and mind, we should do well to remember that in Buddhist terminology they are always treated as one unit: mind-matter (*nāma-rūpa*). For,

although Buddhist philosophy, called Abhidhamma, has a fairly extensive treatment of matter (*rūpa*) in its section on Ontology, where matter is analysed into 28 factors, they are aspects rather than elements. Matter (*rūpa*) becomes food for the mind (*nāma*), an object for the subject, personality as seen from its non-ethical side. But it should be remembered all the time that the distinction is purely academic and not real.

The material qualities then, which we shall now consider in detail, are not abstract ideas, neither are they independent forces of an absolute; but they are the behaviour of nature in action, to which thought reacts, and of which the mind is part. Thus, matter (*rūpa*) is food for the mind (*nāma*), as mind is the reaction to contact in relationship, which is not in opposition of subject and object, but which is the actuality of the process of becoming which is also ceasing. Thus, thought becomes materialised, and matter is conceptualised in that one process of change which makes matter as it appears (*ruppati'ti rūpaṃ*).

Matter, therefore, is a fact and an event rather than an entity with a substance. The material phenomena are not properties of matter, but constituents which are not all present at the same time in the same event. In fact, the origin of the actuality of matter gives to the experience thereof a special quality all its own, which makes the mind react accordingly.

The originating factors of material phenomena are neither good nor bad in a moral sense, yet they arise in dependence on conditions (*sankhata*) which are bound up with the poisoning influences (*āsavā*) of lust for sense-pleasure (*kāma*), lust for life (*bhava*), lust for speculation (*ditṭhi*) and mental inertia (*avijja*). They are not objects of a subjective imagination, but they originate in dependence on conditions. Thus they have no ultimate beginning, as if being created by some absolute, but they arise when conditions are favourable. This activity of conditioning is fourfold: there is the volitional activity of kamma which is wilful and purposeful intention; there is the mental

activity of thought (*citta*) which conceives the ideas about matter; there is the physical conditioning of seasonal influence (*utu*); and the integrating activity of absorption, identification and nutrition (*āhāra*). Some material qualities are due to one or other of those conditions, while some arise in dependence on all. Those conditions will be referred to when being discussed in respect of the individual nature of each quality. Some of these qualities (there are 28 in all, as distinguished by early Buddhist philosophers) fall into smaller groups of kinship, as it were. We shall follow these groupings as that will simplify the understanding of their relationship.

Thus, giving the complete list to begin with, we have:

The four elementary and essential material qualities (*mahā-bhūta*), which are always present in any form of matter. They are the qualities of extension, cohesion, caloricity and movement, presented as the four basic elements of earth (*paṭhavi*), water, (*āpo*), fire (*tejo*) and air (*vāyo*).

Then there are the five physical sense-organs (*pāsāda*) of the eye, the ear, the nose, the tongue and the sensitive skin, together with their respective five sense-spheres (*gocara*) of sight, sound, smell, taste and touch.

Sex distinction (*bhava-rūpa*) is expressed in masculinity (*puris'indriya*) and femininity (*itth'indriya*).

Four are grouped together as vital material qualities: the heart-base (*hadaya-vatthu*), the material quality of life (*jīvita-rūpa*), physical food (*āhāra-rūpa*) and spacial limitation (*pariccheda-rūpa*).

Means of communication (*viññatti-rūpa*) by means of language or symbols, vocal or written, are perceptions by auditory or visual centres.

Three salient features of matter (*visesākāra-rūpa*) are mentioned as buoyancy (*lahutā*), plasticity (*mudutā*) and adaptation (*kammaññatā*), to be well distinguished from their mental counterparts with the same names, as mental factors (*cetasikā*).

Finally four characteristically material qualities (*lakkhaṇa-rūpa*) of integration (*upacaya*), continuance (*santati*), disintegration (*jaratā*) and change (*aniccatā*) complete the list of 28.

## The Four Elementary Material Qualities

It is well-known that the elementary material qualities (*mahā-bhūta*) are in no sense to be compared with the 90 odd elements of modern chemistry. They are not elements, but elementary qualities, i.e. degrees of character, showing the basic traits of solidity or extension (*paṭhavī*), of viscosity or cohesion (*āpo*), of temperature or caloricity (*tejo*) and of movement or oscillation (*vāyo*). They are the tendencies of individuality, non-co-operation and isolation, inherent in self-preservation, as well as the tendencies of integration, absorption and unification, equally important for self-preservation, although opposed in the nature of their activity as repulsion and attraction. This very opposition in action produces the characteristics of friction and heat, movement and temperature, oscillation and caloricity.

In these four basic characteristics of the process of self-preservation in organic matter can also easily be recognised the involved distinctive marks of a fully developed mental life, with all its innate tendencies and leanings towards individual self-preservation: āpo, with its absorbing loves and attachments; paṭhavī, with its repelling hates and antipathies; vāyo, with its constant frictions and conflicts; tejo, engendering its emotional feelings and passions.

These elementary qualities bear the following Pali names:

Paṭhavī, āpo, tejo, vāyo, which literally translated mean: earth, water, fire and air, respectively. These elementary concepts may appear to us after 26 centuries of developing scientific thought as rather primitive. But that is not really so when one tries to see these concepts in the framework in which they were worked out.

We hear of a group of philosophers in Milete (Asia Minor) in the 6th century B.C., the very century the Buddha was born in India, who speculated on the ultimate nature of the composition of all things. Of these Ionian philosophers, as they are known, there was Thales, a very keen observer of nature, who based his philosophic explanations of nature on sense-perception. He tried to explain the universe in terms of matter and energy. To him, the endless variety of phenomena appeared to have a common basis. He viewed the whole as a mechanical unit, but he was too much of a scientific philosopher to introduce speculations of pantheistic ideas. Thus he saw that the most important element of growth, and that means of life itself, is water. Water itself, in its different forms also of ice and vapour, presents the three physical stages of solids, liquids and gases. The earth becomes fertile through water; and without it turns into a desert of death. The sun absorbs the water, and therefore seems to need it. All these and similar reflections gave him the idea that water was the true essence of nature; and thereby be introduced the thought of unity in the diversity of sensations.

When we reflect that at that distant date, 26 centuries ago, the knowledge of physics was not even in its infancy, and that no thinker had given him an inheritance of thought, we can only admire his originality, whatever may be the intrinsic value or truth thereof in the light of our advanced knowledge. Thales was the first natural philosopher in the West (Greece) and is thus rightly considered the father of Western thought. Yet, he would hardly deserve that name if his thought had produced nothing but this statement. The importance of his thought lies in the speculative value which comprehends the essence of things as being void of form. For, water is the formless universal, having no form of its own, yet giving life to all. It was a first attempt at separating logically the absolute from the relative. For him, the absolute has no ontological existence apart from the finite and the impermanent. It is the totality of the finite, of the impermanent, of the process, which reveals its presence in activity,

in condensation and rarefaction which shows the quantitative and qualitative differences of the same essence.

The greatness of Thales lies in the fact that he saw a problem, where others merely accepted the world in which they were born. He may have failed in his search for a correct answer, a failure in which modern science has not succeeded yet either. He had no definite conception of the absolute, and in that sense he is greater than all those thinkers in philosophy and believers in religion, who think or believe to have solved the problem of the absolute in the relative, of substance in phenomena, of soul in existence, of God in creation. He realised that none of the variable states of existence could be considered as the essence of existence. He hit on the problem of 'self' although he did not discover the void of 'no-self' (*anatta*).

Once the door for investigation was opened by Thales, there were others of the same Ionian school, following him, surpassing him, improving the view already indicated. Anaximenes and Anaximander tried each in their own way to grasp the absolute in a natural form. Even more essential than water to life is air; it is also more devoid of form, less material therefore, and hence more general. And so 'air' becomes the spirit which holds the whole world together, the universal substance in everything, the formless, more volatile than water, and not encumbered by sensuous ideas. 'Air' is then not so much the corporeal and material element, but the universal principle of motion, expressed in the 'form' of matter. It is seen as the essence in existence, and hence as the absolute in the phenomena.

But, theirs was still a physical philosophy, concerned with the nature of matter, totally unconcerned about the mind. The unity of substance is recognised without an enquiry as to the cause of the form or formation of that substance. They approached the problem of existence from an empirical angle which would recommend itself to our modern materialists and rationalists, even though they fall short of even penetrating, the outer layers of the problem.



Thus the search continues, when earth is rightly seen as the basis and foundation of all existence, both in its solidity and its nutritive value, as without earth neither water nor air can be contained.

But in all that there is still a deeper common factor, that of motion which generates heat and of heat which produces motion. It is heat that controls the changing factors of matter, as solid, liquid or gas. It is heat which causes vibration, oscillation, movement, which is change. It is heat which purifies and rarefies, as fire cleanses gold and water. It is heat which maintains the body's temperature and health which is life itself.

And so, those Physicists were the earliest opponents to metaphysical beliefs. They rejected a spirit or soul as separate from matter, yet searched for the essence within all existence. It required a Buddha to take up the quest and lead on to the non-entity of all that is in matter and in mind.

The four elementary qualities of matter, whether inorganic, functional, sensory or reactionary, were known also in ancient Indian religious and philosophic terminology. But they were qualities and properties of the essence, the mode in which existence manifests itself. In the Buddha's words the terms are maintained, but new meanings have given them new life.

Matter, which in itself is said to be devoid of discriminative consciousness (*avinibbhoga*), yet forms the background and the fuel which give rise to sensations and the perception thereof in consciousness. Matter is the non-mental, not the dead material considered in itself (if that would be possible), but the material element conceived in the senses. They have their own intrinsic nature and their own characteristic mark without the implication of a substantial entity. An element (*dhātu*) in the Buddhist sense is, therefore, not the opposite of a phenomenon, but is a quality in itself, not less real because of the changing nature of phenomena. A tidal wave is not less forceful because of its changing nature. It is rather in its moving force in that lies its strength and its character. The phenomenal

universe is unreal from an absolute viewpoint, because it contains nothing of an abiding nature, such as a soul, substance or entity. But this unreality from the absolute viewpoint is not a complete negation, for what is unreal in the ultimate sense may be real in the actual or relative sense. In actuality then, the phenomena of matter dependent on conditions and impermanent in their process, are quite real, just as chemical elements have not become less real for the fact that we know them to be composed of atoms which have been proved to be but electronic charges.

Such are the elements of Buddhist conception, not ultimate entities which constitute matter as components, but elementary qualities which are different forms of material energy. These forms cannot exist individually and separately from each other. They are not produced by one another, but in their different proportions they qualify and are the form of energy which is known to us as matter. Their functional qualities are characteristic marks of an elementary nature, still labelled with the old names of earth, water, fire and air, or as they are described as the elements ‘which push and pull, and burn and turn’<sup>1</sup>. Their functional qualities are respectively: extension, cohesion, caloricity and movement (*paṭhavī*, *āpo*, *tejo*, *vāyo*). Extension (*paṭhavī*) is the elementary material quality of impenetrability; a property in virtue of which two bodies cannot occupy the same place at the same time. Magnitude is the most obvious characteristic of material things, for thereby can their shape be determined, and thereby they become visible. It does, however, not only stand for geometrical extensions of length, width and height, but also for solidity in its different degrees of hard and soft, smooth and rough, heavy and light, rigid and slack, polished and jagged, all relative concepts reflecting the general principle of resistance. It is this power of resistance, due to impenetrability, which gives to solid bodies a more or less fixed locality. It is repellent energy, which gives to matter the characteristics of dimension, expansion,

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<sup>1</sup>S. I. p. 23.

weight and pressure. Its main concern, so to speak, seems to be the keeping of the body in equilibrium. Hence, there is a tendency of non-co-operation and isolation, with the inherent tendency of self-preservation, which dislikes combining and mixing.

Cohesion (*āpo*) is the elementary material quality of internal self-preservation, a property in virtue of which the different particles of a body are not scattered about, but cling and cleave and adhere together. It is on this property that the density of a body depends, its quantity in a unit of bulk. Here a body resists any change in the arrangements of its molecules, which is called viscosity. It is a tendency towards conservation of matter and energy, but at the same time a tendency attracting and uniting with other kindred matter. This affinity is a magnetic and centripetal energy, with the characteristics of attraction and co-operation. It does not stand, therefore, for liquid only, but for all characteristics which are of a fluid condition, such as affinity, attachment, adaptability and subtleness. It promotes change and exchange of locality and shape, as long as the internal composition is not affected.

In the same way as the impenetrability of the element of extension is the energy of self-preservation through resistance, so cohesion is the energy of self-preservation through integration. Though opposed in their manner of working, repelling and attracting like magnetic poles, they can yet produce a harmonious process which even leads to the delusion of the stability of matter, though in reality there is nothing but a process of change.

Caloricity (*tejo*) is the elementary material quality of thermal energy in its different aspects of cold (*sītatejo*) and warmth (*unhatejo*). The perception of the different degrees of cold and heat is, of course, entirely subjective, and will differ in various individuals. But temperature as mere caloricity is an elementary quality inherent in all matter. This is essentially so, because caloricity affects the elementary qualities of extension and cohesion, i.e., of solidity and fluidity. An increase in temperature will melt solids and make liquids evap-

orate. It is, however, not combustion involving a chemical change in the object; and thus it is not fire which should be thought of in this connection, neither mechanical heat produced by some external agency in a combination of certain substances. It is rather the physiological source of thermal energy which is found in all bodies, whatever may be their temperature. It is then not the intensity of heat or cold, i.e., the quantity of temperature, but the quality of the power through which growth and maturity are effected, as well as decay. Its presence, thus, is a sign and a characteristic of vitality. Different objects require different quantities of heat to raise their temperatures equally, e.g. lead requiring more than iron, an old man more than a young one, which shows that caloricity is an intrinsic quality of matter which has the characteristics of heat and temperature, but which is in fact the communication and absorption, the radiation and disintegration of thermal energy.

Vibration (*vāyo*) is the elementary material quality of oscillation, which, however, should not be understood as the swinging of a pendulum to and fro between two points, but as an integral motion due to the opposition between the repelling force of extension (*paṭhavi*) and the attracting force of cohesion (*āpo*) in matter. This is the basis for the manifestation of activity. Modern science has accepted this vibrating and pulsating energy in its electronic theory. This elementary material quality with its chief characteristics of oscillation and friction, appearance and disappearance, change, becoming and ceasing, evolution and involution, is the dynamic force in the whole of nature. To this quality are due the phenomena in other qualities. It is through vibration that extension and solidity are repelling and are felt as pressure. It is through vibration that cohesion becomes magnetic and concentrated. Through vibration is produced the friction which generates caloricity. All contacts with the sense-organs are based on movement which thereby becomes the great means of communication.

Thus we see how these four elementary material qualities, unsubstantial as they are, are yet the foundation and the essence of all existence.

The early Greek philosophers, contemporaries of the Buddha, selected one or other of the elements as the universal principle. Pre-Buddhistic Brahmanism of the Rig-Veda and the Upanishads searched for that principle in the metaphysical absolute. But the Buddha's philosophy does not recognise an absolute, substance, god, soul or spirit as abiding entities, and thus explains the evolution of the corporeal as due to the material qualities with their different inherent tendencies of attraction through cohesion (*āpo*), repulsion through extension (*paṭhavi*), vibration through the movement (*vāyo*) in the opposition between attraction and repulsion, and caloridity through the friction (*tejo*) of these opposing and Oscillating forces. They are, therefore, not forms of matter, but qualities which constitute the material process of evolution and from which there is no matter at all.

The pre-Buddhistic concepts of the elements as found in the cosmogonic hymn, the Rig-Veda<sup>2</sup> are those of an unformed primitive matter, called prakriti, which is supposed to be without beginning and from which an ultimate reality in nature is projected as an indefinite substance described as water. The Sāṅkhya philosophy mentions in its Kārikā three constituents, through the activity of which the evolution of the unevolved takes place: sattva, rājas and tamas. Sattva is that in nature which is light, which therefore reveals and gives delight. Rājas impels, moves and produces activity, whereas tamas is heavy and solid and restraining. It should not be difficult to recognise in them the potentialities of consciousness, energy and inertia, as the earliest concepts of the material, essential and elementary qualities.

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<sup>2</sup>x, 129.

There is another way of looking at these elementary material qualities, less intellectually but more intelligently, with less inspection but more introspection, with less supervision but more insight.

Earth, that solid mass which supports all movement, which nourishes all life, which is the foundation of all we build, the basis of all evolution and birth, the receptacle of all involution and death, the great transformer, the great leveller, solid, impenetrable, resisting, repelling, supreme in its egoism and ignorance, sluggish, stupid and inert—that earth yet forms the basis of all existence. Repelling what is foreign to it, it maintains its individuality. Rejecting what does not conform, it asserts its superiority. Casting out what it cannot assimilate, it declares its independence. Such is the chief element in all that exists, by means of which there is extension and expansion, through which there is solidity and repulsion, in which is found obstinacy as food for egoism, antagonism and hatred. Such am I!

Such is the essence of the delusion of separateness, the nature of the deception of individuality and isolation, the scent which pervades all effort in making the ‘I’ grow in opposition and conflict. Born in ignorance, fed on hatred, thriving on resistance—that is the essential element of the earth-bound ‘self’.

But what is existence without resistance? One will know if one knows the meaning, the nature, the working of resistance. Resistance is the refusal to accept change; it is the denial of the nature of movement; it is the perpetuation of eternal death, a reversion of life, of creation, of renewal. If then there is no existence without resistance, that means that existing is not living, and living is not existing. As long as living means self-assertion, there is the earth-like hardness of opposition, the earth-like repulsion of conflict, the earth-like solidity of ignorance.

True living is not self-assertion, but rather a denial of ‘self’ as an entity, as a substance, as continuance. Living is the joy of an ever-new birth, whereas existing is the stagnancy of death. But, death is feared for its insecurity; and thus life is made secure in ‘self’-

assertion, in resistance, in opposition, in conflict. Thus, life is made into conflict, as long as life is 'self', as long as life is earth-bound.

Water, the element of cohesion, subtlety, softness, adherence, affinity, makes the components cling and cleave. Its nature of coherence is selective, its subtlety is penetrative, and its affinity is adhesive. It can make the earth soft, it can quench the fire, and it can moisten the atmosphere. By non-resistance and yielding it preserves its own nature. It easily mixes and combines, and thereby changes the nature of its opponent. In penetration it weakens, in assimilation it strengthens, in persistent pressure it conquers. Attracting others, it reforms. In humidity it penetrates. In absorption it assimilates.

Such is this chief element in all that exists, by means of which there is cohesion and continuity, softness and pliability, in the meekness of which is found the basis of all nutriment, the foundation of all attraction, craving and love.

Such is the essence of the delusion of desire, of ambition, of possessiveness. It is the moisture needed for the growth of the 'ego', without which there can be no affection, no emotion, neither ease, nor disease.

Essential for survival and growth, it is also the greatest danger to existence. Its lack produces desert and death; its surplus causes death in drowning. As the eternal friend and the eternal enemy of life, it gives both life and death. It is always to be placated and harnessed; it has to be resisted to make it yield its power; it has to be guided to make it yield its vitality.

But its adherence is also the essence of possessiveness which is the essence of craving, the essence of continuity, the essence of 'self'. Such am 'I'. Born in misunderstanding of relationship, the 'I' feeds and grows on the affection of others, on the love of 'self'. It thrives on cohesion and attachment, when understanding and insight are drowned in this ocean of selfishness and ignorance.

Fire, which burns and cleanses, which purifies and transforms, which reaches out and consumes, which always searches for new conquests and never returns to burnt-out places—such is the element of vitality and life, of craving and rebirth, of passion and grasping. It is so essential to life, both physical and mental, that all action is due to that fiery element, without which there is no energy, no movement, no growth, no reproduction, not even reaction. Even in sleep temperature drops, while in excitement and exertion the bodily temperature will rise to feverish heights.

It cannot exist in itself, but must continue through absorption and consumption, while other elements cannot continue or act without its heat.

Such is the essence of craving which is the feeding of a non-existent 'self', and which has, therefore, no basis in itself, but which can only grow and live on further grasping, thereby keeping alive the fires of desire and passion, of love and hate, of repulsion and attraction; and which can only be quenched in the understanding of its baseless process, the comprehension of the delusion of 'I'.

It is all-consuming passion to exist, to resist, to become, to propagate, without which there is no motivated action or reaction. When action is without passion, that is, when action is the response of understanding, it also ceases to be a reaction to memory, to the past. Then, action is not the passion to become, not the fire of lust, but the light of insight and the warmth of love, which has no purpose, no goal, no 'self', and hence no fuel which leads to rebirth.

And so, fire is neither good nor bad, but can unwisely be made into an instrument which furthers ambition and searches for ever for new fields for its consuming passion, in which a deluded 'I' finds security of continuance, without which there is no 'self', no fuel and no conflict.

Air, the element of oscillation, vibration, movement, change in time and space, growth, alteration, discontinuance, impermanence, makes all things move in relation to other elements, and also causes



all internal changes of growth and decay, of evolution and involution. It is the essence of energy without which no component things can cling together, nor repel what is inimical to existence. It is the essence of life and death in the psychological sense, as much as the air we breathe in is the bearer of the life-giving oxygen.

This movement may be the physical change in space and of place; it more often is the psychological movement in time without material extension, but with intensity of the mind.

One is only aware of vibration when there is friction, be it physical or psychological. But all friction comes from opposition; and thus, this element of oscillation is observed as ‘other-than-self’ in its opposition to ‘self’. Hence there is resistance to all movement or change; and this friction is the cause of conflict.

And so, the mind attempts to avoid conflict in change and friction in movement, in order to create for itself an artificial peace, which, however, still leaves the ‘I’, which divides, becomes, changes and moves in eternal conflict, till the realisation of ‘non-I’ brings about the end of conflict and becoming. The ‘non-I’ is not an object for desire, a goal for achievement, but just the realisation that the elements of existence have no reality as a substance, no duration as a soul, no essence outside this relation of relative existence and interdependence.

Thus, the four elements that push (*paṭhavi*) and pull (*āpo*), and burn (*tejo*) and turn (*vāyo*), not only feed and sustain the growth of delusion, but they are also maintained by their own creations of craving and hatred, in their search for stability and security, in the face of conflict and impermanence, striving and searching for a ‘self’ in delusion and ignorance, in order to reject all opposition, to attract all support, to consume whatever is absorbed, to find a permanent footing even in impermanence.

Closely connected with the four elementary material qualities (*mahā-bhūta*) are the qualities derived from them (*upādāna-rūpa*), usually enumerated as four, colour (*vaṇṇa*), smell, (*gandha*), taste

(*rasa*) and integrating energy (*oja*). Colour, smell and taste are the objects observed by the respective sense-organs, and they will be more adequately dealt with under the next divisional grouping of the senses as spheres (*āyatana*) and fields (*gocara*), colour with vision, odour with smell and flavour with taste.

These three are seen as dependent on the four essential material qualities, as forms of energy of disintegrating waves of radio-activity, electro-magnetic waves, originating in the dynamic oscillation (*vāyo*) of matter.

A point of interest is the omission of sound and touch in this group. Sound (*sadda*) as a material quality has been omitted, because in its origination, construction, transmission, reception and interpretation there is very much in common between light and sound. Both have their individual spectrum of light-waves and gamut of sound-waves, received in separate organs. But essentially the difference is one of wave-lengths and of speed of travelling of these waves, of which a very small section comes within the range of the human sense-organs, the eye and the ear. Whereas light-waves travel at a speed of 186,000 miles per second, sound-waves cover only about 1000 feet per second. Light travels at the maximum speed-limit, which according to Einstein cannot be exceeded. Thus, the lesser speed of waves does not require a separate classification. Seen as waves, there is no essential difference between sight and sound. Hence they are treated as one single derivative material quality, an indication of the unity of their nature.

The other omission is that of touch. Tangibility is not a derivative from, and is therefore not dependent on any or all of the four elementary material qualities; for, while extension (*paṭhavi*), heat (*tejo*) and motion (*vāyo*) can be actually experienced in sensation, the element of cohesion (*āpo*) is not tangible. Putting one's hand in water, one may feel the gentle resistance of the water which is due to the element of extension (*paṭhavi*); one may feel the warmth or cold in the water which is due to the element of caloricity (*tejo*); one may

feel the pressure of water in motion, which is due to the element of vibration (*vāyo*). But cohesion (*āpo*) is an internal quality binding the element, and which therefore cannot be experienced by the sense of touch which is an external organ. Thus, putting one's hand in water, one would experience in sensation the contact with the three elements of earth, fire and air, but not with the element of water. And so, touch is not a derived material quality (*upādāna-rūpa*), such as colour, smell and I taste. These three derivatives are of a disintegrating nature, as their activity lies mainly in communication through vibration, a form of energy of radio-active transmission which is disintegrating.

The one derivative material quality which is integrating energy (*oja*) is one of the four kinds of nutriment (*āhāra*), of which more will be said in the section on vital material qualities, together with the heart-base (*hadaya-vatthu*), material life (*jīvita-rūpa*) and limitation of space (*pariccheda rūpa*).

Another point of general interest in respect of these four derivative material phenomena is that whereas smell and taste originate in dependence on volitional activity (*kamma*), on mental activity (*citta*), on physical activity (*utu*) and on integrating activity (*āhāra*), it is sound (*sadda*) which makes an exception, being dependent only on mental (*citta*) and physical activity (*utu*), but not being occasioned through volition (*kamma*) or integration (*āhāra*).

## The Physical Sense-Organs and Spheres

For the sake of clear understanding, a distinction is made in each physical sense between the physical organism and its sphere of activity. It is exactly in such distinction that it can be understood that the physical organ can only be of academic interest to an eye-surgeon, an ENT or a skin-specialist. It is from them that we can learn to know the mechanism of the eye-organ, from the cornea through the pupil regulated by the iris to the bi-convex lens held

in place by suspensory ligament; the complexity of the balance in the ear-drum and canals; the secrets which are revealed by nose and tongue, the organs of smell and taste; the protecting cover of the skin which is tough as hide, and gently sensitive to the slightest touch.

As organs they are active all the time, even though one may not always be aware of their action. It is this awareness which constitutes the mental part of the sense-organs, acting in their respective spheres and which will be dealt with separately in the next chapters on the mind as sensation (*vedanā*), as perception (*saññā*), as idea (*saṅkhāra*), as thought (*viññāṇa*).

The eye is the organ of vision. It is a very complex organ with a marvellous sensitivity, which naturally requires special protection. There is the eye-ball with its protecting cornea in front, the aqueous chamber, and the self-operating shutter of the iris in front of the bi-convex lens with its changing curvatures. There are the transmission of the picture through a vitreous chamber on to the retina at the back of this miniature camera, all encased in membrane linings, orbicular muscles and connective tissue—enough to fill pages of any medical book.

Whereas in the operation of a photographic camera it is the operator who makes the required adjustments for focussing and screening, the eye as organ for vision is not operated by external will-power; neither can any adjustments of the lens between cornea and retina be made at will internally. It is worked automatically by the image, that is, by the amount of light flooding into the internal chambers of the eye. The working of the physical eye-organ then is an automatic reaction which cannot be controlled by the mind or the will. One may intentionally close the eye-lids, as one may draw a curtain over a window, and thereby prevent the reception of too much light and the reflection thereof, which becomes the formation an image. But once the curtains are open, there is no power of mind or will which can prevent the penetration of light through the

cornea, the pupil (which is the opening left by a contracting iris) into the vitreous chamber, falling on to the retina. Vision then is not an action of the eye, but a reaction of the organ.

This is a point which cannot be stressed too much. Sight is a reception of light, and is thus a reaction to a stimulus. The interpretation of such reaction does not lie in the sphere of matter. The stimulus of light may be sensed by the optical nerve, after which it is no more vision, but sensation. Sensation may be perceived, the perception may be conceived. A concept may be formed as an idea and a thought. But none of these belongs to the physical sense-organ (*pāsāda*) and its sphere of operation (*gocara*).

The physical sense-organ of the eye is a marvellous instrument of precision, but it only operates under a stimulus, the irritation of light. And thus its action is only a reaction. How light acts and travels in waves can be learned from any textbook on physics, and need not be explained here, apart from stating the fact. Refraction of light and its analysis into a colour spectrum through a prism, the exclusion of certain colours by screening in the technique of colour printing are all applications of the materiality of light and vision. Light waves of a frequency outside the colour-spectrum, ultra-violet or infra-red, cannot be perceived by normal eye-sight, although their existence can be picked up by more sensitive mechanical devices. X-rays, gamma-rays are forms of radiation in scientific use, penetrating many materials impervious to ordinary light and not perceptible by ordinary vision.

The ear as the mechanism for hearing is not less complex than the eye, and perhaps even more finely balanced. In fact, there are three separate sets of mechanism at work in hearing a sound. There is the outer ear which is curled and winged, projecting from the side of the head, merely concerned with the collection and gathering of sound vibrations. Most animals can move this outer shell, directing it towards the source of sound for better reception. The middle ear consists mainly of a cavity within which three little bones, re-

sembling a hammer, anvil and a stirrup, react to vibrations on the ear-drum. The vibrations are set up on a membrane which separates the outer and the middle ear, and to which the little hammer is attached, vibrating together with the membrane. This movement of the hammer is communicated to the anvil on which it strikes, and this in turn contacts the stirrup which is fastened to another membrane, separating the middle ear or drum from the inner ear. The middle ear contains air, the pressure of which is equalised with the air-pressure on the outside of the drum through the Eustachian tube.

Most complex of all is the inner ear, the cavity of which is lined with membranous walls. There are the vestibule, three semi-circular canals and the cochlea, this last one so called because of its shape, which is like the shell of a snail. Together they form the labyrinth which is filled with lymphoid liquid which transmits the vibrations, and in which are suspended a number of minute crystals of carbonate of lime, the terminal fibres of the auditory nerve.

Here too, as in the case of vision, the transmission of sound is entirely mechanical and cannot be controlled wilfully, intentionally or consciously. One may block the ear entrance with cotton wool, thereby reducing noise. But if there is no blockage and the organ is intact in all its parts, hearing is an automatic reaction to vibration. Just as sight, sound is a reaction to a stimulus, the interpretation of which does not lie within the domain of matter. The stimulus of vibration may be sensed by the auditory nerve, after which it is interpreted by the brain as sensation. But sensations do not belong to the physical sense-organ (*pāsāda*) and its sphere of operation (*gocara*).

However marvellous the mechanism of the ear and the precision of its functioning is, it only operates under the challenge of a stimulus, the irritation of vibration. And thus its action is only reaction. The vibrations which form the stimulus are sound waves which travel on air; but those waves are not transmitted as sounds,

but only as vibrations. Not all vibrations can be received by the ear-organ, and vibrations which are either too fast or too slow cannot be recorded by this instrument of hearing. Just as light has its spectrum of vision, so sound has its pitch of vibration, which varies with individual species, e.g. among humans and bats.

The vibrations are not conveyed physically, but they are translated into impulses along some 30,000 fibres of the auditory nerve to the brain, where they are translated into sounds, the significance of which is worked out by the mind as sensations, perceptions, mental formations and conscious thoughts.

The nose, though prominent among the other physical organs of sense, has lost much of its importance among humans, who do not have to rely on their sense of smell as exclusively as some other animals. Yet, it is smell which clings longest, penetrates deepest, and is the most experienced among the senses.

The organ of smell is in the upper nostrils where is hidden that delicate mechanism which produces chemical reactions when coming into contact with odour-molecules in the form of gases. The giving out of these odour-molecules is the process of evaporation which turns liquid and gas into vapour which is carried by the air which is inhaled. In certain respects, smell is the most subtle of our senses, as a virtually infinite number of odours can be distinguished, with no possible range for classification, which often baffles description, such as pungent, exhilarating, refreshing, sweet, pleasant or unpleasant, according to the mind's reaction to such contacts.

Yet, the organ is of extreme simplicity, being a mucous membrane which lines a portion of the nasal cavities in which terminate the filaments of the olfactory nerves. It is the irritation produced by particles of odorous matter coming into contact with the olfactory filaments which makes the nerve react and which causes a sensation of smell. Less protected than the eye and the ear organs, the organ of smell may easily be affected by a common cold which causes a swelling of the mucous membrane, cutting off the ethmoidal cavities

from the common cavity through which the air passes, and which is then experienced as a block.

There is no mechanism in this physical organ which can select and exclude certain odours at will; and so its activity is entirely reactionary. Only in translating the irritation the brain differentiates according to its likes or dislikes; but that again is beyond the range of the physical sense-organ.

Closely associated with the organ of smell is the organ of taste, so close that even when smell is defective, taste suggests some of the reactions required for distinguishing the more essential differences. Frequently, the odour of a substance suggests the taste, and sometimes vice versa. Or, when the sense of smell is temporarily suspended in illness, there occurs also a partial loss of the sense of taste.

Yet, as a physical organ the tongue has a quite individual existence, apart from the nose. Still, they have in common the mucous membrane which lines the inner nose cavity, and which also lines the upper and back surface of the tongue as well as the posterior portion of the palate. The surface is rough on account of the numerous papillae of various shapes, all richly supplied with blood vessels and nerves. Different portions of the mucous membrane of tongue and palate appear to have distinct functions. Sweet and salty tastes are 'perceived' mainly at the tip of the tongue. Thus, sugar brought into contact with the back of the tongue may not be detected. Bitter taste regions seem to be located at the back of the tongue, and acid ones are situated along the edge. But in all cases the substance to be tasted must be in soluble form so as to penetrate to the nerve terminations, in which process the saliva in the mouth greatly assists. But as for 'perceptions' of different tastes, it must be remembered that there is no 'taste' until the irritation of the sensitive nerve-fibres has been transmitted to the brain.

The sensitive skin is in varying degrees the organ for reception of contact with the outer world through touch. It is thus much more



than a protective bag with nine apertures, through which the inner world contacts with the outer world, for it is an organ in itself. And as this organ covers the entire surface of the body, its sensitivity makes it the largest and in that sense the most important of all physical sense-organs.

Without the sense of touch there would be no knowledge of extension and resistance, of contact and laceration, of space and location; and the body would be so vulnerable that life itself would be in constant danger without the sense of pain.

The sensitivity of the skin is not only due to the thinness of the epidermis or the outer layer of the skin, but more so to the distribution of the nerve filaments, although of course the coarseness of the outer skin to some extent dulls the sense of touch, as for instance in the heel.

Here as in other organs of sense, an irritation of sensory fibres and the transmission of that vibration through the nerves to the brain, form the essential constituents of the normal function of this physical sense-organ.

It is in the organ of touch that objective sensation is most closely linked with subjective sensation. In so far as a reaction is produced through the agency of nerves, one may speak of general sensations such as the experience of fatigue or warmth which produce a feeling of general discomfort. Sensations produced in more specialised organs of sense are then more distinctly local in their character. Thus one tastes in the mouth, one hears sounds in the ear, even though association of ideas has enabled the mind to locate the source of sound, of light, etc. externally. The feeling of pain may have its origin in the sense-organ of touch, but it is also an awareness of certain conditions in various parts of the body, such as a stomach ache, a headache, etc. Such sensation is possible, wherever sensory nerves become to a certain extent also organs of touch.

A transmission through the nerve-fibres to the brain is, however, necessary in all types of sense-perception.

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Now what does this general analysis of the physical organs of sense disclose? The foremost observation is that the physical sense-organs are only instruments which operate solely under pressure of a stimulus. Their function is to react to the appropriate stimuli and to communicate their reaction, usually in the form of vibration, to the sympathetic nerve system till the message of reaction reaches the basis which sets the necessary motor nerves in action. Up to this stage of sympathetic nerve communication the entire process is automatic and thus belongs to the material functioning of the physical sense-organs and spheres. What happens thereafter is controlled and may be considered a voluntary action in so far as its reaction does not depend on the purely mechanical functioning of the physical senses.

We shall return to this mechanical functioning of matter, as reaction to a material stimulus, when dealing with the material basis, heart and/or brain (*hadaya-vatthu*) and the principal constituents of living matter (*jīvita-rūpa*), before considering the function of the senses, as sensations, as perceptions, as ideations, as thoughts. But following the order in which material qualities or phenomena are dealt with in Buddhist philosophy on matter and mind, we shall first consider the problem of sex-distinction, biologically and psychologically.

## Sex—Distinction

‘The key to every biological problem must finally be sought in the cell, for every living organism is, or at some time has been, a cell’<sup>3</sup>. ‘Of all the thousands of billions of cells in the human body, the female egg or ovum, though barely visible to the eye, is the largest

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<sup>3</sup>E.B. Wilson: The Cell in Development and Heredity.

and the male sperm the smallest'<sup>4</sup>. 'The sex of every child is fixed at the instant of conception. From the moment the father's sperm enters the mother's egg, nothing can change what is to be a girl into a boy or vice versa' (Amram Scheinfeld, *The Mystery of Sex*).

The human egg and sperm each carry 23 minute chromosomes, which contain the hereditary material contributed by mother or father. With regard to the sex-factor the mother produces only one kind of egg, each containing an X chromosome. But the father produces two kinds of sperm in exactly equal numbers, one bearing an X chromosome and the other a Y. If the sperm with an X gets to the egg first (and there are about 500 million sperms deposited and competing), it pairs up with the X already there in the egg, and a girl is produced. But should a Y-bearing sperm win the race, the result will be a boy. Thus the sex of every child is determined during conception, and no treatment before conception (acid for a girl, alkali for a boy) seems to be able to influence the determination of sex. Nor has any kind of drug or diet been found effective. Whether the time of conception (of copulation earlier or later in the woman's fertile period) might have an influence (with the earlier conception presumably favouring a female child) remains still to be proved.

From this it will be clear that the difference in sex, that is, femininity (*itthatta*) and masculinity (*purisatta*) does not depend in its origination on the mind (*citta*) or the wish of the parents. Neither has the process of nutrition (*āhāra*) any influence in this distinction. The influence of time, period or season (*utu*), although not denied by modern science, has not advanced beyond a state of hypothesis. There remains the one other factor determining the origin of sex, and that is the inherent strength of affinity among X and Y chromosomes. This has been expressed in early Buddhist philosophy as the influence of karma, which is the intrinsic strength and power of individual processes to attract or to repel, to fuse or to perish. Such power is the inheritance of earlier tendencies, as reaction (*vipāka*) is

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<sup>4</sup>J.D. Ratcliff: Conception.

the fruit (*phala*) of action (*kamma*), and is referred to as a faculty (*indriya*), the faculty of femininity (*itth'indriya*) and the faculty of masculinity (*puris'indriya*).

The differentiation of sex between individuals is not found in the fructification of blossoms, each one carrying the complete organism producing the different sorts of reproductive cell. Flowers require only the help of an insect as an orderly to convey the pollen to the ovules.

In the course of evolution, however, the process of feeding—which is the sole occupation of life in its lower strata and which is then continued without interruption just as our inhaling and exhaling of breath—becomes concentrated with proportionately greater effort and greater quantities of food at special times only with long intervals. This naturally requires the food to be stored in the body as it cannot be assimilated all at once. Thus, searching tendencies and storing capacities developed in the course of evolution, which made a division of labour a natural consequence. Here we see the beginning of the active male and the passive female. The male becomes the searcher not only of food, but also of the female.

But search involves selection which is always an emotional act. And when the object of the search is a living being, as the searcher himself, a mutual consent will require emotion, selection and acceptance. Thus the mating time becomes associated with special features; and bright colours, sweet songs and even scents come into being for the sake of greater attraction. In these features we find the expression of the sexual tendencies of the actively searching male and the passively storing female.

Masculinity (*puris'indriya*) and femininity (*itth'indriya*) are thus expressed in many ways besides the generative organic functions. The shape of a woman's hands, feet, mouth and shoulder-breadth are small compared with those of a man. Head-hair is longer in the women's case, but hair on the other parts of the body is more developed in the man. A woman's walk is with short strides, and all

her actions are performed without assertion. A man walks with long strides, and all his deportment expresses his insistence on recognition. And this seems to be the chief difference also in their characters: the women without assertion are more submissive, docile, humble, generous and emotional; a man is bossy, proud, egoistic, and feeling superior undoubtedly owing to his greater rationality.

Women appear in general as the weaker ones, physically and psychically, both for good and for bad. It is said that femininity arises through weak good karma, and disappears through weak bad karma, while masculinity arises through strong good karma, and disappears through strong bad karma, in the cycle of rebirth. 'Women have produced practically no work of the first order in the realms of art and literature, they have contributed little to science, and nothing to mathematics and philosophy.'<sup>5</sup>

In the literary sphere the production of books of fiction is the only notable exception where female genius shows itself occasionally. This exception too is an indication of the difference in mental outlook. Men are interested in things: science, law, politics and all kinds of hobbies; women are interested in people: the children are theirs. Men in general are materialist: they want to rule. Women are idealists; they are ruled.

Men are more judicious; women are quicker in attributing motives. Men are outstanding for their stronger power of concentration; women are remarkable for their delicacy in association.

In actual life the man is always the busier one, while the woman even with her household duties has ample leisure to devote herself to self-education, if she has a liking to it.

Man's economic problems are more pressing than a woman's, for she has only to spend what is given to her, while the man has to provide it for her. Yet, with all his work and worry away from home man can find the necessary leisure for self-development, while woman with her simple duties bound to home and with much more

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<sup>5</sup>C.E.M. Joad

leisure does not find the time, because she does not want it. Here, therefore, lies the root of the difference. It is not a lack of opportunity, but a lack of inclination.

If those differences in character are thus determined by the difference in sex, may we then draw the conclusion that there exists something like an infantile sexuality? Infantile sexuality is, of course, entirely disconnected from the function of reproduction, which it is later to serve. But the satisfaction which the baby finds on its own body is exemplified in thumb-sucking; the satisfaction which it derives from others shows a distinct sexual tendency in that male children take a liking to their mother, while girl-children prefer their father, i.e. a choice of opposite sex, which is called the Oedipus-complex after the mythical Greek king who could not escape his fate to kill his father and to marry his mother. Buddhaghosa in his commentary refers already to this phenomenon in children to have a dislike for the parent of their own sex.

The finer shades of temperamental differences between man and woman will have to be found not so much in differences in the qualities of the secretion of testis and ovary respectively, as in the differences of balance in what may be called the endocrine make-up. Dr. Blair Bell says that a 'woman is a woman not merely because of her ovaries, but because of all her internal secretions, of her endocrine balance as a whole.' And Julian Huxley: 'Any gland producing a secretion abnormal for a woman, but more like that produced by a man, will give to a woman in spite of her ovaries a more masculine tendency.'

## Four Vital Material Qualities

Under this sub-division are grouped four different types, each one vital in its own way, just as the four elementary material qualities (*mahā-bhūta*) were each one essential in its own function. The four vital material qualities are the heart-base (*hadaya-vatthu*), the

material quality of life (*jīvita-rūpa*), the natural selection of physical food (*āhāra-rūpa*) and the limitation of space (*pariccheda-rūpa*), which all will find their mental counterparts in the mind (*nāma*), the psychological aspect of life (*jīvit'indriya*), the mental food of volition and thought (*cetanā, citta-āhāra*) and the mind's universe of space and time (*ākāsa*).

## The heart

The heart is a physico-biological organ of about the size of one's fist, divided right through the centre down into two separate blood pumps. The actions (retraction, expulsion) of its muscles cause the circulation of the blood. This action takes place 60 to 90 times per minute and is caused by a tiny electrical impulse which makes the muscle-fibres contract. Thus, the heart is a kind of electro-muscular pump, and its two chambers provide blood in the two great circulation systems of the body, the left chamber providing the circulation of blood through the entire body for purpose of maintaining its tissues, the shorter circuit emanating from the right chamber to the lungs, where the blood discharges its load of carbon-dioxide to pick up oxygen which renews life in its pulmonary circulation. A system of valves directs the inflow-outflow of the blood in circulation. It is the closing of these valves which can be observed as the pulse-beat.

Thus, the heart is the central station which regulates the growth and maintenance of the whole body including the brain. But it in turn is controlled and conditioned by varying moods and needs which occasionally demand a greater supply of oxygen and, hence, of the blood which carries the oxygen. Then the heart will work harder and beat quicker. In a situation of deep emotion, such as anger, expectation, fear, love, there is an increased demand or stimulus which results in an extra supply responding to the stimulus. Here too, therefore, the action of the heart is really a reaction to an external contact, which is therefore not controlled by will or thought, but by material conditions and external agencies.

It is interesting to note at this stage that the ‘heart’ is here always referred to as the ‘heart-base’ (*hadaya-vatthu*), and also that among the 28 material qualities, whether they are elementary (*bhūta*) or phenomenal (*upaya*), typical (*lakkhaṇa*) or salient (*visesākāra*), there is no reference to the brain. The brain (*matthaluṅgam*) is, of course, listed among the 32 parts of the human body, together with other vital internal organs such as the lungs, liver, spleen, intestines, but it is not listed as a separate vital quality of matter. In fact, in the early Abhidhamma works, such as the Dhammasaṅgaṇī, the list of material qualities comprises only 27 items, among which the ‘heart-base’ is not counted. Only in medieval works, such as the Abhidhammattha-saṅgaha (translated as The Compendium of Philosophy), there is found a list of 28, based on commentaries (non-canonical texts) like the Atthasālinī and the Visuddhimagga, which include the heart-base (*hadaya-vatthu*), now under consideration.

Early texts do not refer to either heart or brain as the seat of apprehension (*mano*) and comprehension (*mano-viññāṇa*), but indicate matter (*rūpa*), that is the body in its entirety, as the internal basis of reflection and knowledge. The organ where contacts are received is the sensitivity of the body, the organ where these contacts are perceived is again the perceptibility of the body. Heart and brain are merely central focus-points where impressions are perceived, reactions are set up, and counter-actions are planned, just as a light stimulus is not seen as such by the eye, even though it reacts to the stimulus, which is subsequently interpreted as light, colour, shape, etc.

However, there is no organ in the body, the influence of which is so generally felt as the heart, for all organs, including the brain, are entirely dependent in their working and for the replacement of wastage, on the circulation of the blood as regulated by the heart. It may be suggested, therefore, that in this basic quality both heart and brain are equated as a basis (*vatthu*) for material action. This



is not really farfetched, if one recalls that even to Aristotle the heart was the central organ, while the brain existed as a sort of cooling mechanism for the blood as it left the heart<sup>6</sup>.

Thus, while brain-research is modelled on biology, and heart-research has been relegated to a more objective physical science rather than to the medieval theological speculations of the emotions, we may safely conclude that both heart and brain are instrumental bases (*vatthu*), whose functions can be stimulated, but not directed or dissected. An isolated heart or brain has no value, until it is placed on a butcher's scales together with a pound of liver. Said Sir Julian Huxley: 'The brain alone is not responsible for mind, even though it is a necessary organ for its manifestation'. And that applies equally to the heart. Emotions are phenomena; they are reactions to external stimuli, just as the taste-buds on the tongue begin to react on contact with a stimulant.

The nature of emotions will be discussed later when they will be seen as interpretations of sense-reaction. As material phenomena the functions of the physical organs are a passive acceptance and reaction, conditioned and uncontrollable; and therefore of no moral significance. It is thus not a question of the heart being the seat of emotional affection, or of the brain being the producer of thought. While it is obvious that an 8-cylinder engine can develop greater H.P. than a two-stroke motor-cycle engine, it should be equally obvious that neither engine is anything more than an instrument and not a cause of creative power.

How, it may be asked, has it occurred that throughout the ages so much prominence has been attached to the heart or to the brain? It is immediately obvious, of course, that these organs are so predominantly important, because they not only function on their own account, so to say, but are also indispensable to the functioning of other organs. But that should apply also, though in a minor degree, to all organs which are interdependent. No organ could function at

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<sup>6</sup>'The Brain: The Last Frontier' by Dr. Richard M. Restak M.D.

all, if it were not kept going with a constant and fresh supply of blood to the lungs, the liver, kidneys, etc. But vice versa, without the proper function e. g. of the liver, the blood supply throughout the body would soon be poisoned and thus affect the entire system.

The heart, therefore, is not merely the organic muscle which is the instrument, but it is the base (*vatthu*) which in the entire body is the vital material quality which makes the process proceed. This base is not the isolated object which can be operated upon, but it is the vital process which finds its most obvious expressions in the movements of the heart.

### The material quality of life

The material quality of life (*jīvita-rūpa*) is not a mental controlling power (*jīvit'indriya*) as is the vitality of the mental factor (*cetasikā*) of that name. It is the material aspect of life which is found not only in consciously living beings, but also in the vegetable kingdom and in everything that grows. It would seem therefore, that the common concept of life is in great need of revision.

Whatever is in the process of evolution, which is in the process of change, is alive in this sense of growth and decay. Even the most solid rocks have grown as is seen in the petrified fossils embedded in stone.

The physical basis of life as growth, as evolution, as decay, as death, is a combination of carbon, hydrogen, oxygen, nitrogen, sulphur and phosphor, a combination which is constantly changing during the process of growth and decay. It is common to plants, animals and humans, while most of these chemicals are found in simple foodstuffs such as cheese. The chemical changes to which this protoplasm, the physical basis of life, is subject are constantly building up and breaking down this combination which is thereby constantly renewed. It is colourless, sticky and transparent, a matter in which fine granules are held in suspension. It is the only matter in which life manifests itself. This chemical composition of physical cells is

called by its structural name DNA (deoxyribonucleic acid), meaning an acid in the nuclei of cells, made of deoxidised sugar. It is life itself. It triggers off the building of all the cells and structures of a body; it makes them grow and synchronise their operations; and it-exists in every living cell of every animal and plant on earth.

This DNA has basically a surprisingly simple form: two intertwining, tape like cords, connected at regular intervals by cross-pieces, like a spiral staircase. The tapes themselves are sugar; phosphoric acid is evenly embossed along the outside of the spirals, while on the inside various compounds with nitrogen form the steps of this spiral staircase.

Scientists have been able to produce this life giving material quality artificially in their laboratories. Why then have they not been able to produce a living being artificially? This is mainly due to the enormously long periods of time required for the formation and settling down of the different processes. If the production of protoplasm takes already one full month of uninterrupted physical and chemical activity, it has been calculated that the production of a protozoon, which is only a unicellular organism on the lowest step of animal life, would take 1000 years. No scientist has the time to wait so long for results of his experiments. But nature in the course of evolution had many millions of years at her disposal for the development of life from lifeless chemicals.

While experiments were made as far back as 1828 (hardly 150 years ago!), when the German chemist Friedrich Wöhler made his first synthetic organic molecule, the production of the building blocks of proteins began in earnest in 1951 (30 years ago!), when interstellar molecules were observed as predecessors of the genetic replicator molecule of DNA. Thus the building stuff of life lies in and between the stars, yet a far cry from those amino-acids to a living cell.

Considering analytically, as we attempt doing here in trying to find out what is matter, and what is life, it becomes clear that life, or

living matter, is characterised by self-replication, genetic change and evolutionary continuity. The beautifully organised crystals in rocks, exhibited in museums, lack, it seems, the essential attributes of life. This appears so, because no mutation is observed and hence no replication. But under selective pressures of changing environments all species tend to evolve towards survival in reproduction, even if the evolved product diverges or branches off into a different species.

Thus the basic chemistry of life is not terribly complex, even though it has been calculated (Preston Cloud: *Cosmos, Earth and Man*) that the possible variations in the combination of human chromosomes alone are more numerous than the total number of elementary particles in the physical universe (the latter being about 10 to the power 80, or 10 followed by 79 zeroes).

The conversion from non-living matter (if there is any such concept possible) to organic or living matter is probably effected by ultra-violet radiation in the hydro-sphere. Rocks were formed by solidification of initially igneous and latter molten materials, which produced the gases like carbon-dioxide, and water-vapour, yielding to further progress of atmospheric and hydro-spherical evolution. Thus the chemical evolution and its biological development of organic molecules, basic to life, are mostly a matter of time, sometimes estimated in billions of years.

## Physical food

Physical food (*āhāra-rūpa*) is the third of the four vital material qualities. After the origin of life in the process of material evolution, it is the evolution of the mechanism for producing and absorbing the organic nutriments from inorganic material which seems as an extension of the phenomenon of the 'creation' of life in the continuation thereof. In this process we have already seen the origin of sexuality or sexual reproduction as an effective means of continuation through propagation, as one of the great events in biological evolution.

But it is in the process of evolution itself also that there is a selection in nature adapting itself to the varying climatic and other conditions. This process of absorption of conditions is here presently considered as the process of nutrition (*āhāra-rūpa*). Its intrinsically selective capacity is not yet that of intentional volition (*cetanā-āhāra*) which is a function of the mind. Yet the physical organism of matter is dependent on the absorption of material for replacement in decay as well as for supplement in growth, as it is a process of nutrition for its sustenance and continuance.

It is the material quality of integration (*oja*), which is the vital material inherent in edible food. The value of nutriment depends on the digestibility of the food. In itself, food is but the fuel which keeps the fire going. Its value depends on its being assimilated. Thus in the process of nutrition there is at the same time a double process discernible, a process of giving and of taking: the food must disintegrate to provide integration for the organs of the body. It is in ceasing that there is becoming.

That the physical body is able to extract from external matter the energy it requires for action, for maintenance, for rebuilding, for reproduction, is the meaning of natural selection within the individual. Thus, iron helps the formation of blood cells. If there is an insufficiency of iron in the blood, it cannot carry the oxygen from the lungs to the tissues which is one of the main functions of the blood-circulation. The body, however, cannot assimilate iron and limestone as they are found in metal and mineral, but they are found in abundance in leafy vegetables. Carbon, hydrogen, nitrogen and oxygen are found in various combinations in those highly complex substances we call proteins, and which again are found in abundance in milk, pulses and nuts. Physical action requires fat and carbon-hydrates which the body can extract from butter, ghee and oil. Rice, wheat and sugar also can provide the carbon-hydrates needed.

And so it is important to maintain a well-balanced diet, for on that depends the functioning of the body and its organs, without which the mind cannot operate. Digestion is the extraction and conversion of those essential and nutritive values through a process of combustion. It is then in cessation that there is origination. It is in death where there lies the origin of life. Thus it is in this process of nutrition that is found the integrating process (*oja*). Integration is a process of combustion and in that sense there is dissolution which, however, is not a destruction or annihilation, for it is the setting free of all the integrating energy which is the principle of growth, through which the law of constancy of matter and energy remains stable.

## Limitation of space

Limitation of space (*pariccheda rūpa*) is here considered as a vital material quality, as it is bound and conditioned by the material qualities of extension (*paṭhavi*) and cohesion (*āpo*) in the material objects, which condition spatial limitations in matter.

There is also a mental aspect of space (*ākāśa*) which is unbounded (*ākāśānañcāyatana*), unconditioned by karma, by nutrition (*āhāra*) or by seasonal change (*utu*), which makes it a pure mental concept (*paññatti*) when it is joined by the time-concept (*kāla-paññatti*) in a four-dimensional space-time continuum. Without further interrupting the present investigation of the 28 material qualities, we shall revert to this conceptual aspect of space-time later, as a transition from matter to mind.

The material region of space encompasses the visible universe in which everything appears to be flying about at less than the speed of light, and which is thus (at least theoretically) observable. And that naturally puts a limit to the universe. Such boundary is of course not a fence, but a limitation beyond which no movement is possible.

The limitation of space is therefore confined by the possibility of movement. And that produces the paradox that space, in which things and people move about, is actually made by the things and people who keep moving. Space is the possibility of occupation; once it is occupied there is no more space; but when there is no space there is no possibility of movement either. Therefore although space is a negation (the fact of non-occupation), it is also very much material.

Space is a negative perception or the perception of a possibility; but as it is a development of the perception of the elementary material quality of extension (*paṭhavi*), it finds its place among the 28 material qualities. Hence it cannot be an innate idea only, for it does not depend on the mind, but on the distance between two objects as long as that, distance is not occupied by something else. Even this limited space cannot be defined ultimately, because with the change of position of the related objects the intervening space is also liable to alteration.

It may be for all practical purposes considered as a vacuum, but it is not nothing, for it can be made, whereas one cannot make 'nothing'. And also, it is more useful than many things which are matter, and yet do not matter. Lao-tse remarked in his Tao-teh-king (1.11) that 'thirty spokes and more may surround one nave, but the usefulness of the wheel lies in that empty hole; a potter forms clay into jars, but their usefulness depends on the enclosed space; a carpenter or mason builds the walls of a house with doors and windows, but the usefulness of the house is measured by the empty space within. Thus external form is made for the sake of the utility of empty space.'

The closest approximation to space as an absolute vacuum (which of course is a contradiction as there can be no absolute in relative space or infinity in spacial limitation) is what has been called the 'black holes', which may be thought of as regions in space, where volume at its centre shrinks towards zero and hence density approaches infinity. A 'black hole' in space is essentially the dis-

appearance of a star from the ‘visible’ universe which has left such a fantastically high density that only small amounts of radiation are emitted from the tremendous gravitational attraction of a black hole. It is thought to be the result of the collapse of dispersed matter, the final stage of stellar degeneration.

Space is then not to be encountered as an absolute void; and hence its place among material qualities is well justified. As a mental phenomenon space-time will be considered later on.

## Means of Communication

Means of communication (*viññatti-rūpa*) such as the spoken or written word are arbitrary codes of signals which have developed throughout the ages and continue to be subject to alterations through use and abuse. Road signs indicating obstructed or restricted passage are a form of shorthand script in picture language. The main purposes remain the same, viz. the indication of facts, the expression of the speaker’s views.

Signs, symbols, gestures, even silence can be very eloquent, and in their unexplained way they may convey much more than words ever could. As they are forms of communication through bodily movements (*copana-kāya-viññatti*), they are considered material qualities. Some animals have developed their own silent ways of communication, of passing on information and messages vital to their community. The ways of bees and ants have long been subject to the study thereof.

Whatever language is used, sounds, signs, symbols, the purpose is the same, namely, to indicate a fact, to express the state and the mind and knowledge of the ‘speaker’ and to influence the ‘listener’. And so, if a word, a gesture or a symbol does not express the knowledge of the speaker, it would constitute an untruth. The state of the speaker may, contrary to his knowledge, not indicate the factual truth in his communication. Such inaccuracy may then not be an



untruth but a mere lack of knowledge. Lack of knowledge, however, in itself may be the result of a culpable neglect, but all this leads us to the spheres of morality which is not to be ascribed to natural phenomena.

The means of communication concerns not only the speaker who is the sender, but it also concerns the listener, the receiver, who should be tuned in to the correct 'wave-length' to reach understanding. That is what is meant by speaking a common language, which need not be a language of words. To arrive at a consensus there must be perfect harmony between the giver and the receiver, a harmony which is not arrived at by shouting down one's opponent as from a political platform, but rather by listening to him.

To listen to nature, one has to be silent first, without impressing one's own views. Everything that lives and moves and exists has something to say by its very mode of existence. To understand such silent language, one has to be silent and open; for, a prejudiced mind cannot understand another view. This is not the same as a disciplined mind, for most discipline is a suppression of the feelings of others, a lack of understanding, because there is no attempt at listening. It seems to be rather suggestive that among men there is less harmony in living, because there is too much talking and not enough listening. To listen with intent of understanding, there must be internal silence for communication to take place. When there is no communication possible because there is no silence, then there is bound to be conflict of interests, which is all too obvious in the material as in the mental world.

Communication then does not depend on selective means (which would be influenced and conditioned), but on the means of harmony through understanding.

## Salient Features

Salient features of matter (*visesākāra rūpa*) are three-fold: buoyancy (*lahutā*), plasticity (*mudutā*) and the power of adaptation (*kammaññatā*). It is the presence or absence of these three salient features which gives matter its own peculiarity in motion and action. Hence they are called salient features or distinctive conditions (*visesākāra*).

These three characteristics are also found as ‘mentals’, that is as mental factors (*cetasikā*) among the fifty which are collectively called mental formations (*saṅkhāra*). We may revert to them in a subsequent chapter dealing with these fifty mental formations as mental factors (*cetasikā*). The interesting point is that these three distinctive conditions as mental factors (*cetasikā*) are further distinguished as buoyancy of body (*kāya-lahutā*) and of mind (*citta-lahutā*), as the power of adaptation of body (*kāya-kammaññatā*) and of mind (*citta-kammaññatā*), as plasticity of body (*kāya-mudutā*) and of mind (*citta-mudutā*).

Perhaps nowhere else is the hand (or the mind) of the commentator more visible than in this scholastic division and subdivision. And one would easily be put to great difficulty in trying to get out of this entanglement, if the commentator himself had not thought up a solution. The three pairs of salient features as mental factors (*cetasikā*) are classified as ‘body’ (*kāya*) when representing the mental formations (*saṅkhāra*) that is the mind in formation, and as consciousness (*citta*) the formed mind or thought (*viññāṇa*). But they are mental (*cetasikā*) throughout, all of them.

Here, on the other hand, they are not considered as mentals (*cetasikā*) but as materials (*rūpa*).

As material features of matter (*visesākāra-rūpa*), buoyancy (*lahutā*) is the capacity for easy change, a freedom from sluggishness, and a lesser degree of inertia. Thus, in so-called light materials a greater amount of this quality will be found than in heavier

ones. Plasticity (*mudutā*) is the condition, peculiar in a high degree, to some materials especially gases, latex and resin, which have an elasticity through which those materials can be stretched and then regain their original position.

It is opposed to rigidity and is always soft and smooth. The essential material quality of cohesion (*āpo*) seems to be predominant in this salient feature of plasticity and elasticity. The power of adaptation (*kammaññatā*) is the material property of wieldiness or workableness, which different materials possess in a different way. Wood would yield to sharp metal; ivory is more workable than diamond; metals become yielding when heated. The essential material quality of motion (*vāyo*) appears to be predominant in this salient feature of adaptability.

## Characteristic Material Qualities

Characteristic material qualities (*lakkhana-rūpa*) are those which give a distinct character to all that is. They are enumerated in this specific class as four, namely, the quality of integration (*upacaya*), of continuance (*santati*), of disintegration (*jaratā*) and of change (*aniccatā*). The chief characteristic (*lakkhana*) of all components is their impermanence (*anicca*), which becomes a conflict (*dukkha*) when their essential characteristic of voidness (*anatta*) is not understood. It is in understanding these, that the problem of conflict is solved. It is the understanding (not the knowledge) that all components are liable to decomposition, which forms the common factor between the material characteristics (*lakkhana-rūpa*) and the mental condition of understanding that impermanence need not become a conflict at all, when it is understood that the entire process of conditioning is without permanent basis, a process of phenomena without substance, a process of mental reactions without a permanent entity, ego, self or soul; in other words, a process of thoughts without a thinker.

These mental characteristics will be considered in subsequent chapters.

Here as material qualities they are grouped together as characteristics of matter (*lakkhaṇa-rūpa*) in which there is no mental conflict (*dukkha*), because the concept of 'self' does not and cannot arise without misunderstanding (*avijja*) in the mind. But the characteristic of impermanence (*anicca*) is found in all that is composed (*saṅkhata*). Thus one finds in matter, as in everything else, the characteristic qualities of integration (*upacaya*) and disintegration (*jaratā*), the two poles of the magnet, held together by an apparent duration or continuance (*santati*)—all aspects of universal change (*aniccatā*), whether it is birth or death, growth or decay, origination or cessation, evolution or involution, an apparent beginning which is also ending a dissolution which is only a solution of a non-existent problem.

All the different material qualities, which we have considered so far, whether they are elementary (*bhūta*) or derived (*upādāna*), salient (*visesākāra*), vital (*jīvita*), conceptual (*viññatti*), organic (*pāsāda*) or circumstantial (*gocara*), have no reason of existence each one by itself. They arise, continue and cease in mutual dependence. That is a characteristic of every compound: Whatever is composed is essentially decomposable (*sabbe saṅkhārā aniccā*). And so, it is an essential characteristic of everything which is composed that it has no independent arising, no essential duration of continuance, and is therefore always ceasing in dependence on the cessation of those conditions which caused its origin and maintained its temporary existence as a process.

Thus, the completeness of such a process of existence is dependent on the presence of all the component conditions.

That is called integration (*upacaya*), which may be described as the birth of material phenomena, the dependent origination with regard to matter. There is no ultimate origin, no creation, but an always fresh formation of material qualities or conditions. Its coming

into being is a coming together of certain conditions, a process of integration.

In the formation and evolution of the universe, the present solar system was evolved from interstellar conditions of attraction and repulsion, of motion and heat. It was not a conscious process with volitional activity, but there are the natural tendencies of material conditions, which are not properties of something, but which are integrating energies which could not be functioning differently, for then they would not be 'that'. When ice melts, it ceases to be ice; when hydrogen and oxygen combine to become water, they cease to be gases. Why does fire burn? If it did not burn, it would not be fire.

It is then the integrating quality which brings the opposing forces of attraction and repulsion together, while in their very combination there must arise friction which produces further opposition. It is the dialectic of matter, in which phenomena arise under the influence of tendencies. Thus, integration is the result of disintegration; and, in integration there is also the tendency to disintegrate.

But in this process of dialectics there is always a lag between the two extremes which is easily mistaken for equilibrium. And equilibrium gives the impression of statics, of power at rest. It is a balance of quantities; and as soon as the quantity of energy on one side exercises more influence, the tendency to be at rest will cease. And so, this very movement from integration to disintegration, and vice versa, has not come to rest in a static continuum, for the process of change itself continues. It is that continuation of the process (*santati*) which is another characteristic material quality (*lakṣhaṇa-rūpa*) which expresses the non-identity (*anatta*) of the different phases in the process, a process which continues dialectically from integration to disintegration, from origination to cessation, from growth to decay; while integration arises from disintegration, origination depends on cessation, growth proceeds from decay, life is born of death.

Matter is not that primal formless structure, a 'substance' which was believed to provide the basis in upholding the phenomena. The phenomena are actions of energy, not properties of an underlying entity which was named 'substance' for that reason. There is no entity apart from the phenomena; it is the phenomena which constitute matter. The 'appearances' constitute matter (*ruppatī'ti rūpaṇ*).

What was seen by the Buddha as void (*suñña*) in matter, and as soulless (*anatta*) in mind, that was discovered by modern science only very recently when matter was found to be energy without substance. The structure of matter, the very nature of the elements is decided by its quantitative composition of the number of electron in the atom. The ultimate nature of matter, therefore, lies in the quantity of the qualities in their different proportions.

Those proportions are not uniform, are not static, are dependent on conditions in their composition. And that is the nature of change (*aniccatā*), the chief characteristic in matter (*lakḥaṇa-rūpa*) and in all that is composed (*saṅkhata*).

It is the composite nature of energy which is matter and which tends to its dissolution. It is the dynamic nature of energy which makes it actively operating from an inner constitutional necessity without becoming a mechanical reaction. In this process, whether seen in philosophic metaphysical thought or in scientific experiment, nothing of a permanent nature can be discerned. This process can only be understood as a whole, as dependent origination and dependent cessation; it cannot be grasped in detail, for in analysis there is a dissection of that which is essentially a process in which there is nothing but change. This change is not an object (*an-ārammaṇa*) of a subjective imagination in the Berkeleyan sense, but is a process dependent on conditions. Those phenomena themselves arise and cease, and are not material qualities produced by some absolute, but their appearance depends on the action of volitional activity (*kamma*), mental activity (*citta*), physical activity (*utu*) and integration activity (*āhāra*). Physical phenomena are dependent on the

activity of integration and disintegration; mental phenomena are dependent on the mental activity of grasping. But the entire process of matter being seized by the mind is a process of reaction. Only the four characteristic material qualities (*lakṣhaṇa-rūpa*) are not reactions, but belong to the inherent nature of matter as composition.

## Summing up Matter

This exposition of the 28 different material qualities is intended to provide a concept of matter as an event rather than as an entity. Similarly, the mind will now be analysed in mental states (*cittāṇi*), composed of mental factors (*cetasikā*), in order to understand life itself as a process in which mental and material aggregates (*khandha*) combine and leave the impression of an individual. The individual, however, is never an entity with a permanent identity but a mere process of becoming and ceasing.

Matter, thus, is not only matter as we see it, feel it, experience it, which is only our mental, subjective reaction we know of. The so-called objective description of matter by the various sciences, physics, chemistry, biology, is a language which increasingly speaks of events, operations, relations, activities, rather than of substances and things in themselves. It is the action which is described, and not the agent. Although this makes matter more actual, it does not become thereby less real. It is the actuality which is real. This is not an equation, as some dictionary may suggest; but it is a pointer that there is no reality apart from actuality, as there is no 'matter' as an entity apart from material phenomena. This does not deny the material phenomena of matter, but denies the existence of an abiding entity while the process of phenomena continues in its change.

This is very difficult to accept, even though it is so natural and evident to see and understand it all as a process, because one is so accustomed and conditioned to see things change as from a fixed

platform. But the platform itself, the solid ground on which I stand, is a process of phenomena which act in resisting, in upholding, in conditioning and in being conditioned. The difficulty in accepting the event is in my refusal to let go what gives stability. I am that platform from which I direct all operations; and if that platform collapses into nothingness, there is the fear that all action will collapse with it. But the contrary is true. The universe in action appears to be orderly when the 'self' is placed in its centre. Till the age of Galileo and Copernicus, the earth was the centre of the movements of the sun, planets, stars and satellites. And astrology still has its charts and horoscopes and ephemeris, based on such observation. It must have been very difficult to accept that the earth is only a dead planet in the solar system, and that the sun is only a star not even of the greatest brilliancy.

It is still difficult to believe that the stars in the sky are not fixed in constellations, for it is on the order of so-called fixed stars that our entire concept of time is based. And that is only one aspect of matter. To persist in existence, that is, to continue to be, there must be order in action, order in thinking, without which there can be no calculated relationship with the 'self', without which there would be chaos. And so one tries to overcome that chaos by the mind's concept of order, relating everything to itself, instead of seeing this 'self' as a process of relationship, of change, of becoming and cessation.

But that would mean the letting go of that 'I'-concept as an entity, a substance, a soul. That means that there is no 'I', a fact which the 'I' of course cannot accept. Thus one accepts matter with all its changes as some 'materia prima' which essentially does not change, although it assumes different forms and structures in relationship and combination, which are the only things we know. Of this 'materia prima', of this formless matter, of this immaterial matter, nothing can be known, because it is simply a mental fiction, just as 'ether' and its waves were invented to carry the light waves in



the way sound waves are carried by air. Science has abandoned the concept of ‘ether’ but one cannot so easily set aside that concept of a ‘self’-entity, because of one’s fear of a total collapse socially, morally, as well as physically, and as long as the thought persists that ‘I am’ and an abiding entity, a subject apart from its action. Matter, as far as we know it, is only our knowledge thereof and as far as we react to that knowledge. That reaction is an experience in the senses, where contact (*phassa*) is received in sensation (*vedanā*), recognised in perception (*saññāsaññā*), classified in ideation (*saṅkhāra*) and assimilated in thought or consciousness (*viññāṇa*).



# Part 2: Mind

## Introducing the Mind

So far we have attempted to present a picture of matter which turned out to be series of phenomena, arising and ceasing in constant change without any substantial base which might remain the same and unaffected beneath all those motions.

Some of these phenomena appeared to be essential, as without them there would not be an appearance (*rūpa*) of material phenomena; others were basic, characteristic, typical, occasional; but none of them real in the sense of having a reality of existence of their own. All are actual in becoming, actual in continued action, actual in ceasing; they are also actual in being dependent on the activity of other phenomena, which makes them reactive and conditioned in their action. Their substantiality is only apparent and phenomenal, because a succession of action gives the impression of continuity. The quick succession of movement of individual photos provides the illusion of movement as long as the movement of the object is faster than the movement of the eye. It is on this principle that the cinematograph works as seen by us in films and television.

It is an interesting observation to realise that things are not what they appear to be. Logically it would follow that whatever I know of a thing is only my knowledge of its appearance and not of a thing in itself. Philosophers, especially since Kant, have been wrestling

with this idea, trying to prove the existence of a thing-in-itself even though its existence cannot be experienced. For, experience comes through the senses, but the concept of the experience is a mental reaction, a conditioned reflex which may be based on sense-contact, but which is not more than what the mind has built up in its mental formations, ideation, images, ideals, and what not. What is being transmitted from the sense-organs to the brain is but a series of electronic vibrations which are interpreted in the brain-cells through comparison, classification, acceptance or rejection. There is hardly any connection between the vibrations in the ear-drum, and the meaning of the word or sound conjured up by thought-formations. And yet, that reaction is the only thing I know about that 'thing'. Its very reaction in my brain-cells constitutes the essence of its existence; and there is nothing else I can know about it. Thus, the phenomena are the thing, or as the Pali definition of matter goes: (*rūpattī'ti rūpaṃ*), matter is what appears to be.

Thus we have a confrontation: things are not what they appear to be; and things are only what they appear to be.

The object (*rūpa*) is sensed in sensation; that means, the contact (*phassa*) is received and established. The reaction to such reception in the senses (*vedanā*) is the awakening of an emotional response, comparing the new sensation with earlier experiences in memory. This emotional memory is a perception (*saññā*) without understanding, and has only the desire to establish the new contact in its memory, so as to confirm the thought of possession. Through this emotional reaction to sensation by means of perception in memory arises the formation of ideas about the new contact. Such ideas, based on memory which is emotion, are the concepts which now all refer to the 'self' as subject. These are the formations (*saṅkhāra*) which conceive the idea of the 'self' as the thinker of those thoughts, for the purpose of establishing a permanent bridgehead, the I from the past to the future. Thus, thought (*viññāṇa*) is the process of the making of the 'I'. When, therefore, matter can only be known

as a reaction, the question naturally arises: What is it that reacts? What is it that receives, perceives and conceives that material action? What is contact? What is sensation? What is perception? What is ideation? What is thought? Or in one word: What is the mind?

We may conveniently begin with an analogy, perhaps not perfect in all its details, yet clear enough to provide a reasonable approach. Light as we know and experience it, is only a reflection. The light of the sun is seen only because it is reflected on the earth, the objects on earth, the dust-particles in the air. The better the reflection, the more light. But in itself, in the outer spheres of the cosmos, where the sun is only a star without an atmosphere of its own, in the vast interstellar spaces where there is no cloud, no dust, no object to reflect, there is nothing to light up and hence there is only the cosmic darkness without reflection, without refraction, without deflection. There is no light even when the sun shines!

Well, such is the mind, which can only reflect what is focussed on it. Hence the mind is called *nāma* (in Pali) because it bends (*nameti*) whatever is reflected on it. Without object, the mind is not. In other words, the mind is not a source of knowledge and understanding; it is the action of minding, which comes into operation as thinking, as reflecting, that is, as a reaction. Here the analogy ceases, for there is no 'mind' as such, as there is atmospheric dust, whether there is light on it or not.

Mind is minding, is bending (*nameti*), is the reflection but not a reflector. Just as matter is known only as a conditioned phenomenon, so the knowledge thereof, that is thought or mind, is the reaction thereto in the material or physical senses, a reaction which perceives the contact and reacts thereto in the formation of ideas, which then constitute the knowledge in conditioned consciousness.

Both, therefore, the material process and the psychical reaction thereto, have no essential or permanent basis. Just as matter is without substance, so mind is without the entity of a spirit or soul.

Mind is a process of thought; and that means an evolution, for any process proceeds, it arises, it develops, it changes, it ceases. And in ceasing it becomes the source of a new arising, never the same, and never another (*na ca so, na ca añño*). It is in understanding the various phases of this process of mental evolution that the mind can be understood. As a process of evolution it is a process of change, a process of becoming. In becoming there is the falling off of what is abandoned, and there is an absorption of what may sustain that process. Just as a fire turns its fuel into charcoal and ashes which are left behind, while the fire continues towards fresh fuel to keep its flames alive, so the process of evolution in becoming and of ceasing in involution, is a process of grasping whatever may feed its need to continue its greed.

The mind then is a process of grasping, and without laying hold of new objects of thought the subjective mind cannot survive. It is said that curiosity killed the cat, but it is the lack of curiosity which will kill the mind in search of knowledge, in search of experience, in search of continuance. The why and wherefore of this search will be discussed later. It is then this evolution of the mind as a process of grasping in its action of thought which shall be the ground plan for understanding the process of thought. Not all action mental grasping is complete. In fact, most mental action remains incomplete, unfertile, unproductive, because of its incomplete action. Just as only a very small proportion of nature's seed germinates, takes root, grows up and produces fruits, so the seedlings of thought mostly remain contacts in sensation, perception in memory, formations in ideas without ever becoming a fully grown thought of responsible action with volition and understanding.

These stages of growth are called mental aggregates (*khandha*), for they are all contained in the fully grown thought of consciousness, just as the early stages of life as a child, a youth, an adolescent are all contained in the full-grown life of a man. Many a child never grows up to be a man; many are the contacts in the senses which are never

perceived; many are the dreams which never grow into responsible activity. But to understand the whole process of life, of thought, of action, one has to understand the stages of formations which can be seen when they do not further develop. It is in vivisection of the process that the stages can be seen, even though the process as a process can only be experienced in proceeding without analysis. And so the process of a thought bending towards an object has been analysed. The material object (*rūpa*) itself is a process of evolution in which are seen the rudiments of grasping, when the element of extension (*paṭhavi*) is seen as resistance, the element of cohesion (*āpo*) as attraction, the element of caloricity (*tejo*) as the passion of friction, and the element of motion (*vāyo*) as the urge to become, the four basic elements which push and pull, and burn and turn.

This grasping becomes intensified when the sense organs lay hold of the object, when perception lays hold of the idea in memory, when ideations lay hold of the memory in mental formations, when thought lays hold of the ideas in consciousness to form the basis of the ego. This whole process, therefore, from physical action to mental reaction, is then a process of grasping. And the five aggregates in their various stages of evolution are rightly called the five aggregates of clinging (*pañc'ūpādānakkhandha*). The analysis of thought is as old as the earliest discourses by the Buddha on the subject, perhaps even older when traces are found in Sanskrit literature. Subsequently, scholarly monk commentators have found it necessary to elaborate on the scheme with the result that mediaeval commentaries and sub-commentaries to the Abhidhamma (the metaphysical section of the Buddhist canon) are distinguishing 52 mental factors (*cetasikā*), where original Buddhist views were content with three only. These three are known as reception, perception and conception, three modes of grasping (*capere*) which shall therefore form the basic structure of our further psycho-analysis.

This inclination to analyse seems to be a very primitive instinct. We all have been experimenting one time or other with odd things,

just to see how they would work out. I remember the time when at a very early school-age we used to have a slate with a slate-pencil instead of exercise books. This had (as everything else) several advantages as well as disadvantages. A mistake could be corrected by simply wiping it off, for which one did not even need an eraser; a grubby and moistened finger would do very well. Of course, there would be no record; and that too was just as well. A slate, even though it had a wooden frame, could and did break occasionally. But then, what does not? A great advantage was that one could start every day with a fresh and unsullied 'copybook'. For, we also had a small tin box with a piece of sponge in it. Very soon we discovered that if one kept one or two beans in that box and kept the sponge reasonably moist, those beans would begin to sprout very soon. I do not think that our experiment went much further, for, living in an old town, we had at home no garden space for planting. But the point is that there was an experiment and that we could watch its progress from day to day till we got tired of it. Now this experiment went on for the moment without any effort on the side of the experimenter. One just opened his box every day and could see the advance of the process. Here was distinctly an experimenter separate from the experiment; and nobody would ever think of interfering with the experiment of one's classmate. It was exclusively 'mine', as I was the originator even though I was no further involved in the process than any other spectator. I knew that this process of growth would go on, even if I did not look at it for a day or two. Thus the process was one, and I was someone outside that process. I could call it mine, but it was not 'I'.

But when it comes to the process of thought I cannot place myself outside that process. If I am watching my thought carefully, I may be able to follow it to some extent, but I have never the experience that I am following someone else. I have identified myself with my thought. I do not have a thought, but I feel that I am thinking. And if I am watching some thought very closely without



allowing it to escape, then there is no thought of 'I am thinking' at all. I do not have a thought, but I am that thought. Now this is an interesting discovery which we should follow up.

In material things and experiments the division is as clear as the separation between a hammer and a nail. Thus the physical actor is not the same as the physical result. While writing these words I am aware of my hand guiding my ball pen. Then, when I stop writing, the written words remain on the paper. The paper may be mislaid and later found and read by someone else. Then there will be a reaction, of which I as the writer am not aware. There is no actor involved in the further process. And so the natural question arises: if there is no 'I'-actor involved in subsequent processes, was there an 'I'-actor in the original process; or in other words, was there at any stage a separation between the subject and an independent object? A hammer and a nail can lay side by side for a hundred years and more, but their interaction will never be according to the intention for which both were manufactured. It is then the mind which brings them together, which causes the action even if the result is material. In the action of fixing a nail in a wall there is the mind as the actor while the hammer is only the instrument, shaped for that purpose by the mind.

When speaking of matter and mind as having separate and individual existence, one falls into the error which has misled the world of thought throughout the centuries, although in various degrees of error with different aspects. It is such division which divides the material from the spiritual in their many applications of extreme views, in morality as the sinful flesh and the ideal spirit, in science as the inorganic materials of physics and chemistry and the living tissues in botany and zoology, of physiology and psychology, in philosophy as materialism and idealism, as the limitation of space and the infinity of time in eternity.

If we seem here to follow that same pattern, it needs the immediate correction which should have been evident already in our

thoughts on matter that we are dealing with phenomena and events, and not with substances and entities. It is, in fact, the explicit purpose of this analytical approach to matter as well as to mind, to show that there is no substance in matter and no entity in mind. It is the basic and essential doctrine of Buddhism that all is composed and hence decomposable, that apart from the changing phenomena there is no abiding substratum, whether material or spiritual, no identity in the apparent continuity of a process of change. It is a doctrine of becoming and hence of ceasing, of appearing and disappearing, of involving and evolving, in which life comes from death just as much as death follows life. Thus it is matter as seen by the mind; it is the mind born from contact with matter. It is not matter in itself (which is materialism), but thought about matter. It is not mind in itself (which is idealism), but the mental reaction to material impressions.

In as much as matter (*rūpa*) was seen as appearing (*rūppatī'ti rūpam*), so the mind (*nāma*) will be seen as bending (*nameti*) towards the image by naming it in receiving (*vedanā*) its impression, in perceiving (*saññā*) its action, in conceiving (*saṅkhāra*) its image to constitute a thought, bent (*nāma*) towards an object, and thereby creating the division of the subjective and active 'self', opposing the objective and passive material. Yet, the one cannot arise without the other; and thus matter becomes a mental concept, just as much as mind or thought is basically material in its formation and becoming. A thought is born in the material senses where, as it were, a contact is established between matter and mind. It is in this sensation that the experience of contact is received; it is through the senses that contact is perceived; it is through the senses that the image of matter is conceived. It is then a mental picture impressed in the senses and expressed in thought, word and deed, which constitutes the mind-matter process. This is expressed in the basic doctrine of dependent origination (*paṭicca samuppāda*) in which mind and matter are not treated separately, but as one simple link of mental

matter (*nāmarūpaṃ*). This one single aspect of mind-matter can only be understood when both are seen in action, as a process of becoming in cessation, a process of ceasing in becoming. Thus is the aspect that everything is impermanent (*anicca*) in its process of change, that everything which is a process of becoming and ceasing is also void (*anatta*) of identity or substance; and that any attempt at resisting this flux of impermanence, any attempt at escaping from this flow of change, creates a duality which is the conflict (*dukkha*) between the actual and the ideal.

One such attempt at escaping in duality is the separation of matter and mind with the purpose of establishing a permanent mind apart from impermanent matter, the attempt to see a permanent substance underneath the impermanent phenomena, a permanent soul within a perishing body, a permanent time-element of eternity within the confines and limitations of space in cosmic existence. It is the attempt to retain existence, to maintain identity, which creates the ideal entity, which must resist all change in order to exist, which must conquer to survive, which is the struggle for life.

It is the misunderstanding of life, which creates the desire to continue in this life, in a life to come, now and for ever. It is that desire which has created an individual soul, and then feels the need of a God supreme to look after that soul in all eternity. Theistic religions are the outcome of such desire, a supply to a demand. In understanding the demand for continuance in impermanence, the basis of this conflict is annihilated without effort of striving, in understanding that there can be no answer to an impossible question (*avyākata*).

So far we have seen the nature of matter. We shall now proceed with analysing the nature of mind, not with a view to establishing an opposition with a ground for grasping, but rather to cut away that ground, that basic misunderstanding, so that no conflict can arise. It is not a solution to a problem, it is not an answer to a question, but in dissolving the problem there is no conflict, in opening up the

question there is no need, and in fact no possibility for an answer. There is no superiority of mind over matter, for there is no mind as an entity, no thinker apart from thought, as there is no walker when there is no walking.

Man is not a combination of animal and angel, neither physical nor moral nor supernatural, though that is what institutional religions want us to believe. There is just an evolution of action, an involution of change, a process of becoming called living, which involves the process of ceasing called death. Just as life and death are not opposed and are always one in a process of change, so matter and mind are not opposing processes, but supplementing and complementing aspects of the one process of change, whether it is called life or death, origination or cessation, becoming or unbecoming. Thus there are aspects of mind in matter (as we have seen already) and of matter in mind (as we shall see hereafter).

In the same way as matter was defined as a phenomenon, as an appearance, as an event, without substance, so the mind (*nāma*) is defined as an inclination, a bending (*nameti*) towards the object of knowledge. It is then not the object of matter which impinges itself on a thinking subject, but the bending to the object, the inflection of thought, is the reflection of that contact in the act of thinking.

Contact (*phassa*) comes through the five physical organs of sense, and the knowledge thereof is the reflection of that contact in the sixth sense, the mental organ of consciousness (*viññāṇa*). The process between this physical contact and its mental reflection is the mental activity of reception, perception and conception, the three stages of the subject capturing the object.

It is this process of capturing, of grasping, which has given its name to the whole process of the 'five aggregates of I clinging' (*pañc'upādānakkhandha*).

This mental activity is the process of the mind laying hold of matter, the mind becoming in grasping. The entire process in its fivefold aspect is described as a process of grasping (*upādāna*) and

the five stages are called the five aggregates of clinging, because each aggregate is a heap (*khandha*), connected and conditioned, yet without forming a substantial unit within the one process of becoming. There is the aggregate of matter, as we have seen in the previous chapter with its 28 material qualities, evolving and involving in nature's own way towards reproduction and continuance. Then the mind, developing from a sense of individuality, reaches beyond continuity of the species by reproduction, and searches for continuation of the individual. In that process there is a renewed grasping at matter, so that there can be a continuity of personality, in which matter becomes 'mine'.

This re-capturing of matter is the reception (*re-capere*) of matter in the senses by the mental process of identification in the senses, the mind being the sense-sphere (*āyatana*) in which the physical sensations are received, remoulded in perception (*saññā*) and conceived (*saṅkhāra*) in identification. Then the new ideas (*saṅkhāra*) about matter become the conscious awareness of individuality or 'I'-consciousness (*viññāṇa*).

The upshot of these observations is then that in material causation there is clearly visible a cause and the instrument and its effect, whereas in mental causation there are only conditions in which the cause and the instrument identify themselves as the action and the result. What is this identification and why is it there?

This identification process takes place in contact, in sensation, in perception, in memory, in mental ideation, in thought formation, in will, in attraction and affection, in repulsion and rejection, in conscious and discursive thoughts, in striving and attachment. It is always the 'I' which is conscious, because the 'I' has to continue in its action, thereby becoming the effect. The physical hammer can lie in a forgotten corner and still be a hammer under all its dust and rust. But action of thought has to be kept in mind for it to remain 'mine'. The moment it is forgotten, it is no more; and with it goes the thinker, the I, who must act so as to exist. Without thought

there is no thinker; without memory there is no 'I' to continue; without desire there is no 'self' to project; without clinging to the picture of the past there is no craving for an image in the future.

And so, becoming is essential to being; but being as an entity is in conflict with the impermanence of all that moves and lives and changes. Becoming is change; and to make or to try making a change in the basis of being, is laying the foundation of chaos and conflict. To understand this, one cannot analyse thought as an outsider, as a spectator, as an experimenter. But one can watch in experiencing the origin, the growth, the decay of thought, of the idea of 'self', in contact and sensation, in memory and perception, in the formation of ideas and ideals, in the projection of thought as a continuation of the concept of 'self'.

## Sensations

Sensations (*vedanā*) are naturally based on the physical sense-organs functioning within their respective physical spheres (*gocara*). But, as we have seen already, a physical action and reaction do not produce a sensation automatically as a psychological reaction. The sense-organs, therefore, and their actions, which are reactions of the inner organs to the outer objects, are not the cause of sensation, but only the instruments, in dependence on which a sensation may arise. And so, we shall have to review these sense-actions as distinct from sensations, even though no sensation can arise apart from its respective sense-organ. Thus we have to understand the difference between sight and seeing, between hearing and listening. And so on, with the other organs of smell, taste and touch.

Sight is a reflection of light, a reaction to the light-waves of various strength, emanating from objects or conditions in space. The limitations of the physical organ of the eye prevent it from reacting beyond a certain spectrum, ranging from infra-red to ultra-violet. The vibrations or light-waves may be too fast or too slow to be

recorded by the camera of the eye, which (unaided) can see only the colours of the spectrum as we see them in a rainbow or through a prism. Such is the limitation of physical sight. But seeing, although based on those physical limitations and functioning with these imperfect instruments, is an interpretation of those sights. Such interpretation is not always a spontaneous mental reaction. More often, this reaction of interpretation is conditioned by many years of use and abuse of the physical organ, influenced by the reactions of the other physical organs, dependent on surrounding conditions, stirred to reaction by external pressure or repression, modelled by convention, education, public opinion, hopes and fears. All that is not a physical, but a mental reaction.

The mind, as we shall see it emerge from following observations, is not an entity, not an instrument of observation. It is observation in action. When thus the various data received through the physical sense-organs are being pooled and co-ordinated, one sense-experience is influenced by another, by many others. When, therefore, the physical picture is reflected on the retina of the eye as upside down, this is corrected by the sense-experience of touch which can actually and physically contact the object, whereas the eye has merely a reflection as object.

Long before a new-born baby is able to focus its eyes and follow any movement within its range of sight, long before it is able to recognise its mother and distinguish her from other objects, a day-old baby can already be seen to contact by hand its own ear. Thus the guidance of contact by touch, of direction by sound, etc. influence and correct the incomplete awareness of sight, which is now being interpreted in co-ordination with the experiences of the other organs. The result of this conditioning is so complete that at a later age we cannot, even if we want to, visualise the experience of the eye-organ on the retina as upside-down.

Education is, of course, also a great conditioner. Take for example the movement of the sun and its planets and the apparent move-

ment of the stars. We see and calculate their movements as from the fixed position we believe to be in. That was so thousands of years ago, till only a few hundred years back Copernicus, Bruno, Galileo, Kepler and others provided a different picture of the universe, which was originally rejected and condemned as being contrary to the to the doctrines of Church, which were then accepted as divine revelation. Now we know better, even though our natural sight has not improved. We still see the sun and moon rise and set; but our education has advanced so much, that we are quite conditioned to see one thing, while knowing that it is not so. The apparent contradiction between self-centred astrology, placing this earth and my standpoint as the centre of the universe, and astronomy which reduces this earth to a secondary rank of planet belonging to a solar system which is far from first class as compared with other stars, this apparent contradiction does not seem to worry us at all. Both are right in their respective places. We are learning to see and understand. We still say that the sun rises in the morning, though we know that it is the earth's movement round its own axis which produces day and night in turn.

In short, we are constantly interpreting mentally what is being observed physically. Whether we are right in our interpretation is another question which will be discussed later. For the moment we recognise our conditioning, our dependence, our reactions to stimuli as interpretations which have assumed a very real power of their own. In this recognition there is already a certain amount of freedom, just as we are free from the old world concept, even though we use its terminology.

This is happening in varying degrees with our reactions in the other physical sense-organs. We hear sounds to which we give our individual explanations. What we actually hear is a set of vibrations set up in the middle ear and transmitted as such to the inner ear, from which the auditory nerve conveys the vibrations as reactions to the brain, where the translation and interpretation take place.



This happens in a similar way in a telephone exchange system. The speaker at one end sets up an electric vibration in the microphone in front of him. This electric vibration is transmitted along a copper wire to which an ear-phone is attached at the other end, responding to the same frequency as the speaker's microphone. The actual voice is not carried over, but the exact vibration sent and received electrically reproduces the speaker's voice which is then 'recognised' by the recipient of the message. We hear the sound, we understand the functioning and we have learned to listen.

In a way as light-vibrations have been analysed and classified in the colour-spectrum ranging from infra-red to ultra-violet, so the sound-vibrations have been arranged in a gamut or diatonic scale of sound, ranging over several octaves till the pitch of sound becomes too high to be heard by the human ear, when vibrations become so small and short that they become radio-waves which can be picked up mechanically, just as light-waves beyond the spectrum cannot be seen, although they can be observed in other ways, such as X-rays and Gamma-rays which penetrate so-called solid matter. Higher frequencies of sound-waves are apparently being picked up by night animals such as bats, whose organ of hearing must, therefore, be differently attuned to different frequencies. It is understanding which makes us see, it is understanding which enables us to listen. Seeing and listening with understanding is the mental counterpart of the merely material reception of light and sound. And the beginning of such understanding is sensation. In respect of the organs of smell and taste, the nose and tongue respectively have not learned as much as the eye and the ear.

Although the physical organ of smell, the nose, is able to distinguish a great variety of odours, the corresponding mental sense has not advanced much beyond some general classification as acrid, pungent, sweet, sour, or as perfume or a foul stink. Most smells are identified by comparison, smells like garlic, or alcohol. It takes a connoisseur to distinguish special aromas. But no attempt has

ever been made for registration and classification with ranges or degrees. And so the mental approach has remained very vague. As if to compensate, smells are much easier remembered than sounds or even sights. After many years a special dish prepared at home in childhood may linger on in the mind and bring back long forgotten memories of circumstances prevailing at the time.

This applies also to the various tastes in the mouth by the physical organ of the tongue. An old man may remember the wonderful taste of his mother's cooking, even though he would be hard put to specify the particular quality of flavour which has survived the years. That tastes differ and vary in different individuals is well known, not only in the world of fashion, but particularly in the taste for food and drink. Here again, it is the mental interpretation which is the cause of individual preferences. Such tastes are not innate although there are general indications of sweets being preferred to acids.

Tastes can be acquired and developed, the cultivation of which is largely conditioned by current fashions.

And that brings us back to the process of conditioning which makes an objective contact into a subjective experience (*phassa-paccayā vedanā*).

The most direct contact is that of touch. Light and sound waves, evaporation and dissolution are the methods of contact in seeing, hearing, smelling and tasting, respectively. But in touch it is the sensitive skin of the entire body which can pick up a direct contact through the sensitive nerve system which acts as the receiver and conveyor. Thus, although in the sense of sight there is established a contact of the visible object with the physical eye, this contact is not considered to belong to the sense of touch.

Touch is the contact of a physical body with the receiving physical organ, which is the sensitive skin and which is much more than a protective covering. The more tender the skin is, the more sensitive in receiving a sensation in the epidermis, the dermis and the sub dermal layer. Still, the awareness of the sensation is a reaction

which takes place in the brain, the organ of the mind. True contact of all the senses is then established by the mind in which all sensation is sensed; and therefore, it is in the mind that contact becomes sensation (*phassa-paccayā vedanā*).

Sight is not experienced in the eye where the contact takes place, but the experience of contact is felt where the object is: one sees the bird not in the eye but on the tree. Sound, if too loud, may be painful to the ear, but the experience is always joined with a feeling of direction towards the source of sound. Smells and tastes are thought of as belonging to the object (sugar is sweet, quinine is bitter, dung is offensive), even though it is the subjective organ which establishes the contact, and the subjective mind which provides the interpretation. But touch is a direct experience in the organ, when pain is felt in the body and pleasure gives satisfaction to the 'self'.

So, each organ has its own peculiarities. Still there is one thing common to all sensation, and that is the mental interpretation of the individual. The physical senses may function materially, but as long as there is no mental interpretation, there is no experience, no sensation.

Sensation (*vedanā*), therefore, is much more than feeling, which is found also in unconscious states of matter, in growing plants, in absorption and in the regrouping of certain physical materials, in the formation of atoms, of chemical elements, as witnessed in this ever-expanding universe. The process need not go beyond this grasping at matter, and never become the conscious volition of individuality as seen in a mature person. But there is the grasping of re-capturing matter, when sensation (*vedanā*) grows out of contact with the elements which push and pull, and burn and turn, when expansion (*paṭhavi*) leads to resistance, when affinity (*āpo*) becomes absorption, when caloricity (*tejo*) becomes consumption, and movement (*vāyo*) leads to decay. It is because evolution is also involution, because life includes death that a recapturing of matter through the senses becomes a categorical necessity for the continuation of indi-

viduality. To exist, one must resist; and so the mind grows out of resistance in matter, and it recaptures matter in sensation and perception, in the formation of ideas and the thought of 'self' (*vedanā, saññā, saṅkhāra, viññāṇa*).

That applies equally to all sense-perception and sense-reaction. And thus, thought, which is the sensation of ideation, is established as contact with its internal organ, the mind. This mental touching is much more important than mere physical touch, for this mental touching is the arising of a thought, which is the reaction to a mental contact, which may result from physical touch.

The arising and cessation of the mental touch can be made the object of awareness, which is not a new thought, and thus not a new mental touch. In the direct observation of such mental contact which is the sense-perception of the mind, there is no observation by the mind of an external object, be it physical, or a concept, but is an awareness of the activity of such reaction. In watching the mind forming a thought and appropriating it as an idea, preserving it as an ideal, using it as a means for continuing its individuality, there is a cessation of thinking, of reasoning, of identification. In such insight there is freedom from thought, cessation of ideation, no more conflict of ideas.

Sensation is the first step to awareness, which is consciousness of a momentary observation. The significance of sensation is an intellectual explanation of the process, either through interpretation following a recording of the past through memory, or through projection into an ideal state in the future. The comparison of this moment with a recording of the past is no interpretation at all, because the points of comparison have nothing in common. That certainly is not common sense; and in as far as memory is not a sensation, it is nonsense. The difference between sense, common sense and nonsense lies in the relative viewpoint, in the perspective. The process of idealisation is still further removed from sense, just

because it is the projection of an ideal, that is, of a concept of an image which has no basis in sense at all.

The only thing, therefore, that makes sense is the sense-impression of the present moment, if that impression is seen as it is. That means that in the awareness of a sensation there should be no conditioning which classifies the impression by means of analysis or integration. All that is the work of memory which is the mechanism used by the mind to provide a background, a basis, a stand, not to understand, but to rest on, to secure the mind itself, to provide a substance with which to work, an entity to continue its existence, an identity to assimilate, absorb, retain a momentary experience for future work, for progress and development, none of which makes sense.

In order to retain a sensation and make it an experience which can be recalled and made use of, it is classified, labelled, appropriated, made into 'mine'. Thus, the 'self' is a bundle of such reactions, a junk-shop of life-less, sense-less material. To see such action of the mind while appropriating a sensation is to understand sense-contact, sense-impression, as neither common sense nor non-sense, but as a reaction without basis for 'self'. And that makes sense! Sensation (*vedanā*) is an experience in the sense, that is, in the sense-organs both external and internal and that means, contact with the object and contact with the instrument of thought. This experience has something of the experimental in it; and as all people (as long as they are not defective) have the same type of organs, they can also experience the same type of experiment. Hence, we have no great difficulty, apart from language, to communicate our experiences with others, to compare and learn from such communication. It is sensation which we have in common before we think of communicating them. When we speak of a specific colour, we all understand more or less what we are talking of, as long as we are not too specific and technical. The sky is blue and the grass is green, and we all agree, even though it will be hard to find a common ground for those

sensations. That is because an experience need not be intellectual. Such are sensations which may be perceived but not conceived as ideas. The general concept of colour in the abstract will be much harder to convey. The senses have no relationship with the abstract and the absolute. Sensations are related to the physical experience; they are therefore communicable, and have no reality of their own.

But that means that sensations do not exist; they are only sensed. And as experiences they have to be translated first to ourselves before we can define them in terms understandable by others. It is this translation of the experience of contact in the senses to our selves, to be made into a concept, which is the process of sensation growing into that of perception, producing the conception of an idea. Until this process is completed we have no idea of the precise nature of the experience. Thus, it is quite possible, during sleep for instance, that a sensation is received, but for lack of recognition is misconceived. The switching on of a light in the room where one sleeps need not awaken the sleeper, who however may be unconsciously aware of the disturbance and give it a wrong interpretation by dreaming of the house being on fire.

This interpretation itself is an experience which has arisen in dependence on other factors too. One who has never seen a fire would not be able to dream of it. This does not happen often in the wakened state, because then there are other senses which can and do check the accuracy of the judgement. It is the sense of touch which corrects the sense of sight, where the physical eye sees its objects up-side down reflected on the retina. Similarly, tastes can be cultivated, just as habits. One may get used to disagreeable symptoms to the extent that no displeasure is experienced any more. It is the influence of thought on matter, where originally it was matter influencing thought, even provoking it. One of the strongest and most dominant experiences originating in the senses is that of self-identity. I have seen a baby, hardly 24 hours old, moving its hand towards the ear and getting hold of it. The sensation of touch

resulting there from would have been reciprocal in the hand and in the ear, which would not be the case while trying to touch anything external. Thus there is the beginning of a distinction between self and non-self from birth, a beginning of the sense of separateness, of individuality, long and many years before those words can have any meaning at all.

Then why is it that it is not discovered that there is no separation of individualities at all? Why is it not seen that this concept of self can only have meaning in opposition to non-self, that is, that there is no self-entity in isolation, but only in relation which is a mental concept? And if this self-consciousness is only relative, why is it not seen or sensed that it is non-existent in itself?

Let us go back to that new-born baby. We can only guess why the little hand moved up to the ear. There must have been some slight touch or irritation which was communicated via the nervous system and the brain which set the motor-nerves in action, which resulted in the reaction of the hand. This sensation, however mechanical in its reception, is the beginning of understanding as perception, which is interpretation. It is sensation based on contact (*phassa-paccayā vedanā*) which is the subjective experience of an objective contact, the sense-reception being (*dvārāvajjana*) as sense-perception, such as sight (*dassana*), sound (*śavana*), smell (*ghāyana*), taste (*sāyana*) and touch (*phūsaṇa*), followed by the acceptance of recipient cognition (*sampañicchana*) and investigation (*santīraṇa*).

1. Now follows the determining or deciding factor (*voṭṭhāpana*) which differentiates the received and perceived object, which is the work of mental formations (*saṅkhāra*), a synthesis of the earlier analysis, a conception of the earlier reception and perception. It is this deciding factor (*voṭṭhāpana*) which is the work of volition (*cetanā*), which rejects or absorbs, which judges and opposes, and which thereby lays the foundation for the division of self and non-self, the will-to-become the will to

assume, the will to acquire, the will to continue, the will to expand, the will to resist in order to exist.

2. Only after these seven thought-moments is the thought-unit sufficiently grown and developed to be responsible for its action, which is no more a sense-reaction but a reaction of volition, of grasping, of clinging, which now constitute a full (*mahanta*) thought with karmic responsibility, when cognition has developed into recognition, when perception has become apperception in which there is the conception of ideas, with clinging to past experiences in memory, with craving for future projections in ideals. Identification and registration (*tadālamāna*) complete this process of thought-forming, when ideations become recognised as belonging to 'self', when action (*kamma*) becomes reaction (*vipāka*).

Leaving a detailed study of this general survey for later we must now return to that thought-formation, the will, which is the sole representative of all ideations in the early suttas the will (*cetanā*) as developed from sensations and perceptions, and developing into the volitional activity of responsive thought.

Volition has a double function. It activates thought with purpose and intention, without which no action can have moral responsibility. In this sense it is equated to kamma, is reproductive and determines the nature of action as good or evil. Another characteristic of volition is that it coordinates and organises the functions of other mental factors. Thus it takes its own part of action and makes at the same time the other actions perform their tasks, just as teacher's chief pupil recites his own lessons and makes other pupils recite each his own lesson too<sup>7</sup>. It is with this second characteristic of coordination that volition manifests itself as directing associated states, and is found thus in a restricted sense in an arahant who has no volition in the sense of karma. This characteristic of coordination and binding together the other mental factors is found in any kind

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<sup>7</sup>Atth. S. I. iv. 1.



of volition in any sphere of existence; it is simple ordered thinking (*cetaṇita-lakkhaṇa*).

But the characteristic of productive volition, of the will which endeavours to issue in action (*āyūhanarasatā*), is only found in karmic action, and hence not in an arahant, whose actions remain ineffective (*kiriya*).

It is often accepted in theological systems of morality that 'will', to be morally responsible for the effect of its action, must be free. A source of action which is predetermined cannot be held responsible for the result of such action. Hence the controversy whether the will is free or predetermined, whether it carries moral responsibility or not. Whichever way this question is answered, it presupposes the existence and the functioning of a will which may or may not possess the quality of freedom, the property of freedom of choice to function as will at all. The possession of any property presupposes the existence of a proprietor, which in this case would be the will at issue. Now, willing is a functioning not of an organ, just as thinking is not the functioning of the brain, but is a process of arising and ceasing. Willing arises when a choice of objects presents itself. There is no will when there is no choice. When it rains, there is no choice of its opposite. One may wish the rain to stop, but one cannot will this to happen. Willing, therefore, depends on choice. But when there is dependence there is no freedom.

Then, if the will is not free, is it predetermined? This is one of those unanswerable questions, impossible because the premise accepts a statement which is unreal, self-contradictory, and hence meaningless. If will arises in dependence on choice, there is no will in itself to be either free or determined. There is no will; but willing, desiring, craving arises when a desirable object or situation presents itself. And when such presentation takes place, the object influences, conditions and in that way determines the outcome of a choice. Thus, volition is neither free nor determined, because there is no

will. Volition arises and ceases as any other process in dependence on and reaction to the stimulus of choice.

Then what about the moral responsibility for one's actions? If choice is not free, but dependent on the conditioning by the object, there is a way of unconditioning all choice. Then, of course, there will be no choice. This happens in perfect understanding when there is no possibility of making a wrong choice when a problem presents itself. This is not a solution of a problem in advance, but rather a dissolution of all problems. When a problem is encountered, it is only in ignorance that a wrong choice of solution can be made. If one knows the destination at the forking of a road, there cannot be a choice between right and wrong, even if one had the physical strength to ignore the correct indication. Thus, martyrs have ignored the physical suffering of martyrdom to follow the path of love for God, as they understood.

This throws the entire problem back to the individual who created the problem. It is indeed always the same problem with the same conflict and the same choice between the ignorance of non-self with the lure of self-satisfaction, and the understanding that there cannot be a choice when there is no 'self'. The solution, therefore, does not lie in the answer to the question, but in the understanding of the meaninglessness of the question. Will is neither free nor determined, because there is no will. Volition is a mental factor arising in a process of mental aggregates which have neither existence nor meaning, nor purpose outside this process of which they are a mode; a factor, but not the property of some entity, called mind or soul or individual, or super-soul or God, the absolute.

Analysis of the mind in mental factors (*cetasikā*) was made possible through a distinction based on opposition. Thus the most obvious distinction in mental factors is that which proceeds from and provides thereby a moral distinction between good and evil. The crude image of sin as found in theistic religions has no place in Buddhism, because in Buddhism with its views of evolution and

involution there is no place for the concept of a god-creator. The inner contradiction in a god creator being the source of good and evil, need not concern us here, as there is no ultimate beginning in a process of change and evolution. Thus, the concepts of good and evil are rather those of skill and foolishness, of wholesomeness and illness of thought (*kusala*, *akusala*). But even those concepts have become a standard of conformity and distinction, although there may be found equalising aspects which might become either good or evil in association with those standards. Concentration or one-pointedness of mind (*ekaggatā*) is always necessary in the practice of either good or evil; and so is the vitality of action (*jīvit'indriya*), the faculty which maintains the process, together with the control of thought (*manasikāra*). These two factors together with mental contact (*phassa*), mental sense-reception (*vedanā*), mental perceptive reaction (*saññā*) and volition (*cetanā*) are then enumerated as the seven factors which always and everywhere appear in the construction of any thought, be it good or evil.

Together these seven are called the mental factors of any thought, common to every thought (*sabba-citta-sādhāraṇa-cetasikā*).

1. Contact (*phassa*) is not the physical touch, not even the impact which is accomplished according to the nature of the sense-organ. As a mental factor it is the mental reaction caused by contact. The sense-organs are the outlets and inlets (*dvāra*). The mental contact is the experiencing (*anubhava*) and the naming of the experience as pleasure, pain or indifferent feeling. It is this naming process which robs the experiencing from being understood, which prevents contact to be experienced without judgement, which makes use of this naming process to label the experience, to retain it in memory, to preserve it as 'mine.'

2. Sensation (*vedanā*) is this naming process which experiences the contact in the senses, as pleasure, pain, etc.
3. Perception (*saññā*) is the assimilating of the named object, i.e. of the object as named, as experienced, as sensed, as 'mine'. Matter can exist without being perceived, but the material reaction in the senses is a mental perception which finds its basis not in matter but in the mind's appropriation, the mental reflex. It is this reflex which is stored in the subconscious (*abhisaṅkhāra-viññāna*). And thus it is this cognition which is perceived and stored.
4. Volition (*cetanā*) is the mental factor of intention in mental activity, the basis of distinctive knowledge (good and bad), the foundation of assimilation through choice which makes the 'I', the actor, separate from the action.
5. One-pointedness (*ekaggatā*) binds them all together which may show itself as peace of mind, mental balance with a sense of satisfaction in achievement.
6. Vitality (*jīvit'indriya*) is the life-force of persistence, which is the mind's way of projection through individualisation. While matter preserves itself in propagation of the species, the mind preserves itself through individualisation which is the opposition of 'self' to no-self. The physical vital force (*jīvitarūpa*) is the persistence of material qualities in the continuation of the process which is life. But the psychological vital force (*jīvit'indriya*) is the mental process aiming at the continuance of the individual through unification of other mental factors. It aims at the preservation and continuation of the 'I'-concept.
7. Attention (*manasikāra*) is the directing activity inherent in any class of thought. It guides volition while constructing perception and controlling sensation. It is the natural inclination to satisfy the demand of one's interest. Thus this factor

constructs the object in the mind, it regulates the mental process by turning attention to the contact at the sense-doors, and it regulates the representative consciousness at the time of apperception (*javana*). It is the rudder which steers the thought.

These are the seven factors which contact, sense and perceive the object, which grasp at it in volition, and then fix, maintain and guide its operation in the mind, the mental process. Further classification has distilled another group of six mental factors (*cetasikā*) which do not always occur in every class of thought. Thus they are miscellaneous or particular (*pakiñṇaka*). In themselves they, too, have no moral significance, but they become moral (*kusala*) or immoral (*akusala*) according to their association and combination with other factors, either moral or immoral. Hence they are also referred to as 'either one or the other' (*añña samāna*). In that respect they appear to be more interesting than the earlier set of seven general factors (*sabba-citta-sādhāraṇa cetasikā*) which are always present in any thought. This set of six particular mental factors (*pakiñṇaka*) is initial application of mind (*vitakka*), sustained application (*vicāra*), resolve (*adhimokkha*), energy (*virīya*), delightful interest (*pīti*) and the desire to do (*chanda*). In their own right they are neither moral (*kusala*) nor immoral (*akusala*), but they may become so in association with other mental factors, which we shall consider hereafter.

8. Initial application of mind (*vitakka*) is the adjustment of attention (*manasikāra*) by focussing and fixing thought in discrimination. It is thus a further development of the general mental factor of attention, operating largely in the process of image-making. It is found in argumentation and judgement as a logical sequence of thought. As it arises through application of mind, it is not found in perceptive awareness in sensation and direct perception; neither can it arise in formless states of

consciousness, for then thought will be occupied with abstract ideas only, which do not admit the logic of deduction (*takka*).

9. The progress and continuation of this initial application is referred to as sustained application (*vicāra*), and operates largely in investigating consciousness (*santīraṇa*). It differs from the former mental factor which grasps the object as a whole, by distinguishing individual qualities. Observation has become research. When drawing a circle with a compass, the fixing of one point in the centre is like initial application (*vitakka*), while the drawing of the circumference with the other point is sustained application (*vicāra*).

We may even continue this simile of Buddhaghosa<sup>8</sup>. After the circle is drawn, its outline will remain even when the point in the centre is withdrawn. Likewise, application can remain as investigation (*vicāra*) without the further assistance of repeated initial application (*vitakka*). And that is indeed what happens in the second stage of mental absorption (*jhāna*), when the mind is more calm and less excited than in the initial stage of absorption.<sup>9</sup>

10. Resolve (*adhimokkha*) is another obvious case of later development, as it has not found a place even in the Dhammasaṅgaṇī, the chief text book on Buddhist Psychology of the later Abhidhamma period. Only the Commentary (Atthasālinī) thereon has made allowance for amplification: ‘or whatever other incorporeal causally induced factors there are’ (*ye vā pana kā*).

It is an after-thought, for it does not arise as a thought through the five bodily senses. It is a follow-up of an impression, a mental resultant which combines only with reception in the mind (*sampatiṭṭhāna*) and investigating consciousness (*santīraṇa*).

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<sup>8</sup>Atthasālinī, I, iv, i.

<sup>9</sup>See ‘Agony & Ecstasy’ by the present author, p.44.

It prevents wavering of thought, and cannot have any association with doubt. As decision, it puts an end to perplexity, and thus it is a further development from volition (*cetanā*) which is more general in its choice.

11. Energy (*virīya*) puts method in the functioning of thought and thus makes for perseverance. Then it is energy as an 'in-force' (*paggaha*). It also takes the initiative when it is characterised as 'ex-fors' or effort and exertion (*utthānavirīya*). Thus it has the power of control (*indriya*) as well as the power of rousing energy (*bala*). Physical energy is not produced by the body, for it requires previous mental effort to perform the physical actions which invigorate the body. 'Bodily energy as well as mental energy is always energy as a facet of wisdom'<sup>10</sup>.
12. Interest (*pīti*) is a delightful experience, not to be confused with the pleasant feeling (*sukha vedanā*) of satisfaction. It is more the anticipation than the fulfilment of delight, as it has the thrill of expectation, which the actual possession lacks. It is not marred by fear of a possible loss, because the desired object of interest has not actually been attained yet. It is entirely mental without actual physical experience. Owing to its nature of anticipation it acts as a lubricant to the other mental formations; and as such it is more intellectual than emotional. Usually it is shown as a good quality, but it can occur equally well in unskilful actions (*akusala*), when its nature of expectation leads to greed.
13. Urge-to-act (*chanda*) is the desire-to-do rather than a desire to obtain, which last one is craving (*taṇhā*) and which is always evil (*akusala*). The urge-to-do on the other hand may be an inner compulsion as a result from understanding the need for

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<sup>10</sup>Bojjhaṅga: Samy. Nik. V, ii.

action. In that case, the desire to act can be extremely wholesome (*kusala*) in combination with other skilful mental factors, especially with the factor and faculty of insight (*paññ'indriya*), when it can be found even in the transcendental mental states of an arahant.

The desire-to-do (*chanda*), on the other hand, can be neutral or un-moral (*avyākata*), in which case it simply will be a wish-to-accomplish. An act perfectly detached from its possible results, but arising from perfect understanding of the need to act, would be a rare perfection, yet encountered sometimes as a spontaneous response to an immediate need. Such was the need felt by the Buddha to proclaim his teaching, even though there would be so few to respond.

The most obvious classification of deeds and thoughts is the one based on purpose, which is volition (*cetanā*) and that leads one directly to a division of good and bad. So far we have seen seven factors which are general because they are found in any act of the mind, and six other factors which are particular because they are found in some or other, but not necessarily in every act. The morality of all these actions is decided by their association with other factors which are intrinsically good or evil.

This simple division is based on the results of such action. Thus, an action or a thought will become good in good company, but turn bad in bad company. This distinction between good and bad has already been discussed, pointing out that there is no sin in Buddhism as an offence against a divine law, but only unskilfulness (*akusala*) as a transgression of a natural law. Thus, killing is always evil, because it interferes with nature and the right of life, whatever the circumstances may be to make it desirable. Hence, death as capital punishment for crime can never be condoned, as the effect (capital punishment) cannot rectify a past murder, even if it were to act as an abhorrent for the future. Likewise, killing in self-defence or in de-



fence of one's country is an act against nature and hence it is always evil, wrong, unskilful and inexcusable, whatever the circumstances may be. This distinction then between good and evil, as skilful (*kusala*) and unskilful (*akusala*) is basically a natural distinction which does not need a supernatural sanction. What is needed, however, is an unbiased understanding of the motives of one's actions, which again brings out the essential nature of all mental formations (*saṅkhāra*), namely the volition (*cetanā*) to act. Will, motivated by a good intention must be based on right understanding; then there can be no wrong choice, and there will be spontaneous action which is right.

Basically then one may envisage the structure of Buddhist morality in the formation of thought, as being that of volition (*cetanā*), which is then again seen as skilful or not in its effect.

The unskilful factor (*akusala cetasikā*) as an intentional act of the mind then falls almost automatically into a further subdivision. The main factor of unskilfulness is, of course, the absence of skill, which in the mind is an absence of understanding. All unskilful mental states without exception are, therefore, based on this lack of understanding (*avijjā*), which in this moral set-up is called delusion (*moha*). It is through lack of understanding that actions are performed unskilfully.

Delusion is then the essential basis of all woe. Not only the body falls ill by foolishly eating undesirable food, but the mind is essentially poisoned and blinded by the factor of delusion. Delusion in a way is even worse than ignorance, for ignorance can be rectified to some extent by learning. But in delusion there is not even the knowledge of ignorance; and the fool who believes to be a wise man is a fool indeed. This delusion, therefore, has been shown by the Buddha as the root cause of all evil. Even the fact of sorrow and conflict (*dukkha*) is attributed by him to the non-understanding (*a-vijjā*) of the chief characteristics, the three 'marks of distinction'<sup>11</sup> the im-

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<sup>11</sup>For detail see the present author's monograph under this title.

permanence of all things composed (*anicca*), the conflict (*dukkha*) arising from the opposition to this universal fact, which opposition is conditioned by identification with that opposition, and the refusal to understand the nature of this process of identification which is the delusion of is identity seen as an entity (*anatta*).

In the chain of conditioned origination (*paṭicca samuppāda*)<sup>12</sup> the basis of all conflict (*dukkha*) in the past, present and future is shown to be this ignorance which is the delusion and formation of a separate 'I'-concept. It is also the vanishing of the 'I'-concept which in dependent cessation leads to insight (*paññā*). Erroneous views (*ditṭhi*), whatever their specific nature, always find their origin in this lack of understanding, this refusal to see, this prejudiced mental attitude that there must be a 'self', a soul, an identity to continue, to support, to project its actions, a substance to uphold the phenomena, an essence to maintain existence, a permanent to account for the impermanent, an absolute to be in charge of the relative.

It is in delusion that one craves for identity, that one clings to the concept of continuity, that love and hate are self-centred. It is this delusion which is the flood (*ogha*) which swamps and sweeps away all chances of emancipation, it is the fetter (*saṃyojana*) which binds this concepts of 'self' to the wheel of rebirth, it is the impurity (*kilesa*) of bewilderment, the drug (*āsavā*) which bemuddles the mind.

It is also on delusion that a distinction of good and evil is based, a system of morality, of greed (*lobha*) and hate (*dosa*) which constitute the next main division of the unskilfulness of ignorance in delusion.

The passion of greed (*lobha*) in the sense of lust (*rāga*), of wanting in the sense of grasping, of projection in the sense of becoming (*bhava-taṇhā*) is the outcome of this main delusion of 'self', which turns even love into self-love. Greed is the root of stealing, of sensual misbehaviour, of covetousness, of erroneous opinions, but only

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<sup>12</sup>For detail see the present author's monograph 'Dependent Origination'.

as long as ignorance and delusion becloud the issue which is the search for the satisfaction of 'self'.

But hate (*dosa*), too, is a passion as aversion, resentment, repugnance and hostility, a mental vexation, a tendency to resist and oppose, not for the love of the opposite, but for the mistaken love of 'self'. In that mistaken view there is killing and lying, and all kinds of ill-will, which is hate.

Thus, both greed and hate, although they can never unite in one thought, are yet grounded on the same basis of delusion. All three, greed, hate and delusion (*lobha*, *dosa*, *moha*) are united only in ignorance, the great 'sin' in Buddhism, an 'original sin', as the very origin of individuality in existence. It is in delusion (*moha*) that there is volition (*cetanā*), as it is in volition that there is greed and hate, as it is in delusion that there is lack of shame (*ahirika*) and carelessness of blame (*anottappa*) and agitation in a striving mind. It is in greed (*lobha*) that there are wrong views (*diṭṭhi*), that there is conceit (*māna*) which says 'I am' (*asmimāna*). It is in hate (*dosa*) that there is envy (*issā*), and meanness (*macchhariya*), worry (*kukkucca*) and sloth (*thīna*) with torpor (*middha*), of mind and body.

Let us see them as the commentator saw them, one by one, fourteen unskilful mental factors (*akusala cetasikā*), based on the ever-present will or volition (*cetanā*), grounded on the ignorance of delusion (*moha*), either in greed (*lobha*) or in hate (*dosa*).

14. Delusion (*moha*) is mental blindness or, in a smaller degree, mental short-sightedness. As a mental factor (*cetasikā*) it is present in any unskilful thought or action, and so it is through the presence of delusion that acts are performed unskilfully. For, who is he (and that applies also to the supposed creator of the universe) who can make a thing of perfection and yet allows it to mess up its working in unskilfulness? Of course, there is an answer which, however, is not an explanation; the creator has made all things perfect, but man's free will, also

made by him, has abused his power of freedom. This is only a further indication of the extent the deluded mind can get bogged in its own wishful thinking. We have seen already that ‘will’ (*cetanā*) is never free, but arises in dependence on conditions. And if there is a creator of perfection, why did he create such a conditioned mind which can throw a spanner in the works, bringing about only chaos and conflict, for its selfish ends?

Delusion (*moha*) leads to craving and lust (*lobha*) for wrong things, for things that are wrung, twisted, misunderstood. It leads to the misunderstanding of others, and hence to hate (*dosa*). Thus it is misjudgement, lack of comprehension, narrow-mindedness, which causes further pertinacity and inamenable to reason and insight.

15. Unscrupulousness (*ahirika*) in doing unskilful action is always present in any thought of a deluded mind. For, in delusion the mind cannot abominate wrong for evil’s sake, and shrink from it. It is shamelessness and unconscientiousness which prevent the mind seeing the false as false. It is disobedience to one’s nature and its persistence is an impudence totally unworthy of the dignity of the human intellect.
16. Carelessness of blame (*anottappa*) is another distinction in the compound of delusion which is a recklessness of consequences. In its fearlessness of disapproval it may appear as straightforwardness. Disregarding public opinion may in itself not be evil; but recklessness which refuses to see evil and its consequences will also hold out an accusation of hypocrisy and narrow-mindedness in others still restrained in word and action. Then it will appear as self-righteousness and pride, the surest signs of self-delusion.

17. Agitation (*uddhacca*) is the excitement of a deluded mind which causes a loss of equanimity, which leads to uncertainty and lack of balance. As distraction in a wavering mind, it is the typical disease of our modern times with its excitement in expectation, followed by the depression of disappointment.

The overstrained tension in modern research, the constant pressure due to competition, comparative examinations, application of undue influence in obtaining jobs, are all due to this delusion which is far from zeal or fervour. They are signs of inner weakness in an unskilfully deluded mind.

When morality divides the mind as good and bad, it follows easily that evil is further subdivided in the two opposites of greed (*lobha*) and hate (*dosa*). And these two have been further analysed, greed as passion (*rāga*), greed as conceit (*māna*); hate as envy (*issā*), hate as meanness (*macchariya*).

18. Greed (*lobha*), although it results from a mind in delusion, is not always present in a deluded mind for it does not combine with hate (*dosa*), which too finds its origin in delusion (*moha*). Greed and hate are mutually exclusive, even though they originate in the same soil of ignorance.

Greed (*lobha*) together with hate (*dosa*) and delusion (*moha*) are very often referred to in the suttas as the three roots of all evil. The later Abhidhamma (Dhammasaṅgaṇī, ii. 2 Hetu-gocchaka) has 77 descriptive terms for this lustful root of evil, which in the more doctrinal suttas is mostly referred to as craving (*taṇhā*). It is the lust for life (*rāga*) as craving for sensual indulgence (*kāma-taṇhā*), that is for the pleasures of the five physical senses, which becomes a psychological desire for their continuation, which is a craving for rebirth (*bhava-taṇhā*). There is also possible a craving for non-existence (*vibhava-taṇhā*), which is the speculative view of annihilationism according to which everything is finished with the disso-

lution of the aggregates of matter and mind. This ignores the law of causation and conditionality, according to which it is experienced that effects may continue long after their causes have ceased, when such effects themselves have become the conditions for the arising of further consequences. It is speculative view, the attachment to which is a passion for opinions (*diṭṭhi-rāga*).

Greed is the root-condition of stealing, of unchastity and other sensual misbehaviour, of covetousness and erroneous opinion. Psychologically it is the instrument through which the deluded individual seeks continued existence through thought-projection, striving for ideal states of rebirth and spiritual attainment. It has, therefore, two satellites, as it were, in wrong views (*diṭṭhi*) and conceit (mind).

19. Views (*diṭṭhi*) or opinions are always wrong views (*micchā-diṭṭhi*) when they cling to false doctrines (*diṭṭh'upādāna*) including life's origin, life after death, the possibility of deliverance. But the most dangerous view, from which all others spring, is the view of individuality (*sakkāya-diṭṭhi*).

Buddhism does not deny individuality as long as it is seen as a process of arising and cessation, of action and reaction, of change and conditionality. That, in fact, would constitute right understanding (*sammā-diṭṭhi*) on the noble eightfold path. But the erroneous view (*micchā-diṭṭhi*) here considered is the wrong opinion of a 'self' as a permanent individual, a substance, a soul, an entity; views of animism, of transmigration, of eternalism; speculations about the infinite, the absolute, the real. They are all expressions of the desire, the greed of the 'I' to continue, independent of all modifications. And that view of 'self' is the conceit which says 'I am'.

20. Conceit (*māna*) is a mental factor with the binding strength of a fetter (*sarīyojana*) which is only broken in a perfect saint,

an arahant. This is because it is so subtle that it can hide and disguise itself as a sense of duty or justice.

Then the progress of the nation, the liberation of the down-trodden, the safe-guard of democracy assume the noble motive of altruism. In religion there is the assumption of spiritual powers to forgive sins, to confer merit, to be the intermediary between God and the sinner, to be the anointed one who alone can enter the sanctuary and offer oblations. Yet, conceit is not a false belief, for the conceited one is truly convinced of his superiority, of his selection, of his ordination, of his divine right.

It is rooted in delusion (*moha*) and in greed (*lobha*) but is not associated with hate (*dosa*), because it has no intention of degrading others, but only of elevating oneself, in an attempt to balance inferiority. In conceit there is neither doubt nor worry, but a complete self-assurance, based on the delusion of 'self'-conceit which says 'I am' when hypocrisy and pretension become second nature.

21. Hate (*dosa*) is another root of this unholy trinity. With greed as the tendency of grasping, hate is the tendency of resisting and opposing. Hence the two never combine, although both are rooted in the same delusion (*moha*) which has turned even love into 'self'-love and which makes hate a resistance to all that is not 'self'. Where greed expresses itself in self-opinionatedness and self-conceit, hate finds expression in envy and meanness.

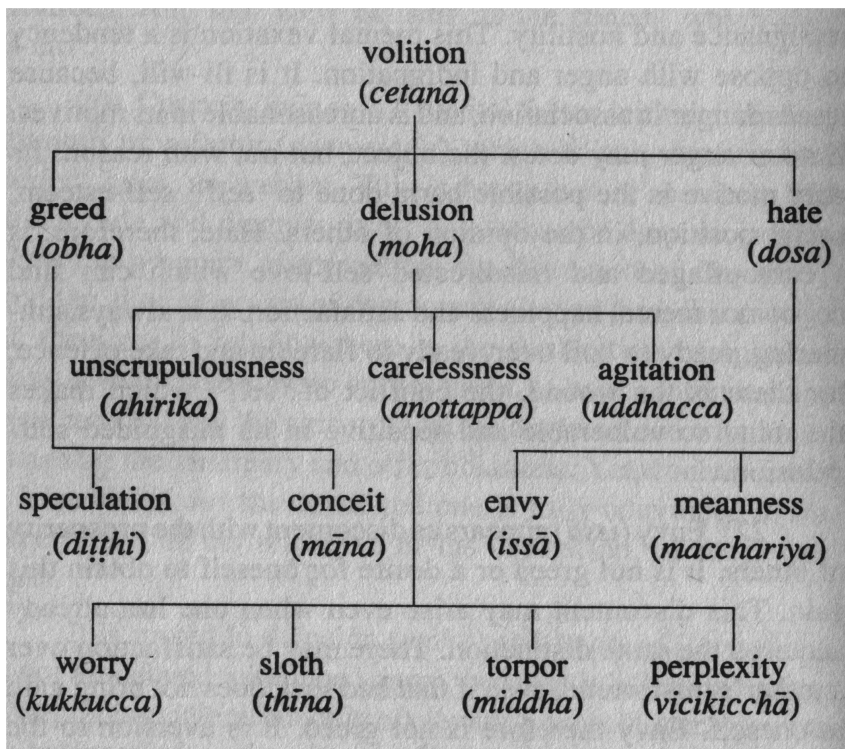
Although hate is directed outwardly, it is really the position of the subject which produces resentment, aversion, repugnance and hostility. This mental vexation is a tendency to oppose with anger and indignation. It is ill-will, because it sees danger in association, and is unreasonable in its motives. Hate or anger may detest the object, but not with reason. Its only

motive is the possible harm done to ‘self’, self-esteem, social position, in the opinion of others. Hate, therefore, is a camouflaged and misdirected self-love which can find no joy nor mental happiness and satisfaction. It is always simmering, ready to boil over, ready to flare up and take offence, for there is the wound, the conflict of self, which makes the mind so vulnerable and sensitive in its misguided self-delusion.

22. Envy (*issā*) appears as discontent with the prosperity of others. It is not greed or a desire for oneself to obtain this gain. This discontent may arise even when one has already acquired the same distinction. There may be satisfaction over another’s misfortune, even if that bad luck does not bring gain to oneself. Envy therefore is not greed. It is aversion to the good in any form, but always with the thought of ‘self’ for comparison in the background. ‘Self’ can grow even in the decay of non-self.
23. Meanness (*macchariya*), as a lack of generosity, has no association with greed, for meanness to others may not bring affluence to oneself. Yet it is selfishness in grudging to share. This withholding of good to another is not an expression of greed for oneself, but of hate to others. Here too, the basis of this hate is to be found in the delusion of ‘self’.

It would appear, as if the commentator did not find this list of the unwholesome factors comprehensive enough. So far we have seen the original ‘sin’ of volition (*cetanā*) with ignorance or delusion (*moha*) as its base, being divided in a system of morality, with greed (*lobha*) and hate (*dosa*) as the main factors.





Greed (*lobha*) was then further divided into speculation (*ditṭhi*) and conceit (*māna*), while hate (*dosa*) was divided into envy (*issā*) and meanness (*macchariya*). Delusion (*moha*) was seen as unscrupulousness (*ahirika*) and carelessness (*anottappa*) with mental agitation (*uddhacca*).

The suttas, however, come up very frequently with two sets of unskilfulness: flurry and worry (*uddhacca kukkucca*) and sloth and torpor (*thīna-middha*), whenever they are referred to among the hindrances (*nīvaraṇa*) which form the obstacles to ethical progress and to concentration of mind<sup>13</sup>. Now, as agitation (*uddhacca*) had already found a place as an offspring of delusion, its supplement worry (*kukkucca*) had also to be accounted for, and then of course also the other twin set of sloth and torpor (*thīna-middha*). Thus all three were accommodated as unskilful mental factors, as further off-springs of delusion (*moha*).

24. Worry (*kukkucca*) brings about remorse over the past and hence neglect in the present. As repentance it is a displaced state of mind. 'Because we cannot undo the evil done, nor do the good left undone, the reproach of such neglect in the mind is unskilful'<sup>14</sup>. It is an after-thought which has nothing to do with conscientiousness (*hiri*). It should not be confused with a sense of responsibility, for worry is about an action in the past which cannot be recalled. And so, it is an inhibition, a waste, a prevention to acting now, always arising in a displeased or angry mind, based on hate and delusion.

25-26. Sloth (*thīna*) and torpor (*middha*) are always combined in the suttas, and they have found their joined ways also together in this classification of unskilful mental factors.

Sloth (*thīna*) is a mental disease, a kind of stupor which blocks all intellectual interest and spiritual progress, owing to a lack

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<sup>13</sup> Ang. N. IV, 2; VII,6.

<sup>14</sup> Atthasālinī, ii. 2.

of initiative, while torpor (*middha*) is seen as its physical counterpart. Physical weakness and seasonal influences produce a tendency of stagnation, leading to unawareness, an inclination to following the line of least resistance.

27. This leaves us with one more unskilful mental factor (*akusala cetasikā*), which is the doubt of perplexity (*vicikicchā*) which stands in a class all by itself, because it cannot combine with either greed (*lobha*) or hate (*dosa*). It is a direct offspring of delusion, producing a wavering state of mind, an indecisiveness in choice of object. Thus perplexity can never combine with any state of mind other than delusion. It is obviously far removed from skilful doubt which is a facet of enlightenment, namely the spirit of enquiry, of investigation in the truth (*dharmavicaya*). Perplexity originates in ignorance which does not realise the actual nature of things. Owing to this ignorance one does not take adequate measures to overcome delusion to solve one's doubts. Perplexity then is also one of the five hindrances (*nīvaraṇa*) to ethical progress and mental insight. It is also one of the ten fetters (*samyojana*) which at the very outset prevent one from even entering the path of holiness (*sotāpattimagga*).

In opposition to the fourteen unskilful mental factors (*akusala cetasikā*) there are nineteen skilful ones which occur in any good thought or deed. They are not particular to some good thoughts only, but are to be found in general in any skilful thought. Hence they are known by their general name as the general lofty mental factors (*sobhana sādharma cetasikā*).

These nineteen are called *sobhana*, meaning bright, shining, beautiful, for they brighten the mind in opposition to their counterparts which in general becloud the mind in delusion.

Here too, we can discern the commentator's hand at work. For, not being content with the opposites of greed (*lobha*), hate (*dosa*)

and delusion (*moha*), and classifying them as detachment (*alobha*), good-will (*adosa*) and mindfulness (*sati*), we find also introduced confidence (*saddhā*) together with conscientiousness (*hiri*) and fear of blame (*ottappa*), arranged on the side of understanding (*amoha*). The corollaries of greed and hate in their opposites of detachment and goodwill are, however, not worked out by the commentator. Instead we find even-mindedness (*tatra-majjhataṭṭā*) followed by six pairs of mental factors, which are hardly distinguishable, as tranquillity (*passaddhi*), buoyancy (*lahutā*), flexibility (*mudutā*), serviceableness (*kammaññatā*), proficiency (*pāguññatā*) and rectitude (*ujukatā*).

Each of these last six is distinguished and analysed as that of mental factors (*kāya*-) and that of thought (*citta*-). The qualifying term *kāya* here does not stand, of course, for the physical body, as we consider here the mind at work. But the sensation experienced in the physical senses (*vedanā*), the perception thereof (*saññā*) and the ideations of mental formations (*saṅkhāra*) in this same process are the ‘body’ of experience as distinct from the conscious thought (*viññāṇa*) thereof, which is thus referred to as thought (*citta*).

We shall now take them up, one by one, as encountered in the commentarial analysis of the later Abhidhamma period.

28. Confidence (*saddhā*) is the skilful mental state in which perplexity (*vicikicchā*) is absent. But that does not make it into a blind acceptance of authority, of the unknowable, of religious dogmas. And thus, confidence must not be confused with blind faith which is the basis of all so-called revealed religions. A revealed religion is based on certain revelations granted to its founder by a superior authority, mainly through what is called divine inspiration, which must be accepted without questioning.

A true teacher who wants his pupils to understand what he is teaching will welcome their questioning in a spirit of investigation, a spirit of discovering what is true for themselves. He may

suggest certain guide lines which are no more than sign-posts giving direction to movements. The moves, however, have to be made by the pupils, without grace, without predestination, without predilection; and from the pupils' standpoint without fear. In an unknown land such signs can be most helpful and it would be foolhardy to ignore them. And so, without dependence on a sign-post, such as leaning thereon or using it for purposes other than following its indications, one would be well advised to make an attempt at observing its instructions.

Such well-advised attempt at understanding and following with open eyes is a skilful confidence (*saddhā*), without which no useful endeavour will ever be made. Without confidence there can be no experiment, no investigation, no testing. The outcome of such testing should never be a predetermined goal, for that would be striving with purpose for an ideal which is mind-made, and thus can lead only back to 'self', to desire for achievement, which is the will-to-become, the 'self'-projection of greed based on delusion. A salient feature of confidence is complacency (*sampasāda*), with an impulse to go ahead (*pakkhandana*) which is the very opposite of faith and dependence, grace and salvation. It is the inner strength which 'packs provisions for the journey'<sup>15</sup>).

29. Mindfulness (*sati*) is probably the most essential of all skilful mental factors, not only because it is the moral counter-balance to delusion (*moha*) and superficiality, but because it is the intent application of mindfulness (*Satipaṭṭhāna*) which can discard all distorted views (*vipallāsa*). Mindfulness of the body and its actions (*kāyānupassanā*) will see the impurity (*asubha*) thereof; mindfulness of sensations (*vedanānupassanā*) will see them as the source of conflict (*dukkha*); mindfulness of thought-perception (*cittānupassanā*)

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<sup>15</sup> *Saddhā bandhati pātheyyaṇi*: Devata Samy. 1. V ii

will see those ideations as impermanent (*anicca*); mindfulness of the mental states (*dhammānupassanā*) will see all thoughts and things as unsubstantial without entity and hence without identity (*anatta*).

Thus, mindfulness is properly the first step to enlightenment (*sambojjhaṅga*), and has found its rightful place on the noble eightfold path as right mindfulness (*sammā-sati*). It is the moral element of discriminating and prompting. It is, as an admonitor, the intellectual side of conscience.

30. Conscientiousness (*hiri*) is the inward shame of doing wrong. Based on understanding the nature and motive of an action, it will naturally abstain from what is wrong, wrung or twisted, and do what is right because of its directness in understanding the immediate need for action. It will show itself as a preventive thought and also as faithfulness to small things. It is thus not conditioned by external motives; and it is this absence of self-projection which makes this virtue so attractive. It makes service careful, obedience respectful, respect filial and all relationship unselfish and constant. It will react to circumstances in a fitting way with a deep sense of responsibility. But it is not bound to so-called duty, and so its reaction will not differ in private or in public.
31. Fear of blame (*ottappa*) is a fear of consequences, mainly the fear that one's bad example will be the cause of leading others astray. There appears to be a motive of reaction which would be less effective if one were to live in complete solitude. A noble friend (*kalyāṇamitta*) would be a great asset to one in whom this moral fear is strong.
32. Detachment (*alobha*) is not just the absence of greed through renunciation, but rather a degree of incapacity for craving and attachment. And that leads to freedom, without emancipation

being its goal. To be incapable of craving is not an ideal virtue worthy of striving for, because any form of striving would be purposeful without understanding, which is not virtue.

Detachment, therefore, is a deep-rooted understanding of this process of attachment, of subject-object relationship, of self-acquisition and self-projection. In detachment from action there is no concept of a separate and enduring actor, no desire for continuity, no delusion and no conflict. Then, helpfulness and liberality will come spontaneously without distinction or choice, and detachment will then often manifest itself in a spirit of self-sacrifice where and when the need for it is understood.

33. Good-will (*adosa*) is here shown as the absence of hate, indicating that love cannot be cultivated. Hate as ill-will is an emotional feeling based on 'self', an 'ego' that is hurt in its self-esteem, that is offended by lack of appreciation, that is thwarted and frustrated in its striving for self-achievement and acquisition in learning, property or virtue. When this centre of self-action and thought is dissolved in understanding, there is a spontaneous reaction in relationship which sees the need of others and acts with good-will in response. That is love which does not seek a reward, which cannot be brought about, which cannot be talked about. And so, loving-kindness (*mettā*) the first of the four sublime virtues (*brahma-vihāra*), is here presented as the absence of ill-will (*a-dosa*) in which even the thought of 'self' is absent.
34. Equanimity (*tatra-majjhataṭṭā*) is the same as the sublime state of even-mindedness (*upekkhā*). It is the neutral middle (*majjhata*), but not a neutral feeling of indifference in feelings of neither pain nor pleasure (*adukkha-m-asukha*). On the other hand, it is not the same as one-pointedness of mind

(*ekaggatā*) which occurs even in unskilful thoughts when concentration is essential.

Equanimity prevents the mind losing its balance by going to extremes. Thus, it is neither sensational, nor emotional, but intellectual, arising from understanding the law of karma and conditionality. And so, it is characterised by a sense of justice and impartiality which is of great assistance in the calming down of the passions. Thus, it is an important facet of insight (*bojjhaṅga*) and enlightenment.

Now we arrive at an obviously scholastic interpretation and probable interpolation, the necessity for which is not at all clear. There are six pairs, each of them split up into *kāya* and *citta*, which basically stand for the physical and the mental, for matter and mind. Fortunately, the commentator who made the division has also attempted to explain his effort. In connection with these six pairs of skilful mental factors, both the physical and the mental are related to the function of the mind, but with a difference. *Kāya*, the physical, stands for that part of the mental process which is closely related to matter, namely, sensation (*vedanā*) which is the experience of physical contact, perception (*saññā*) which is the awareness of this physical sensation, and ideation (*saṅkhāra*) which is the mental reflection of that experience. *Citta*, then, would be the mental aspect of this process as experienced in consciousness (*viññāṇa*). But this scholastic interpretation, however ingenious, brings about its own difficulties. All these twelve skilful mental factors, grouped in six pairs, are mental factors (*cetasikā*) which together with many other such factors constitute the process of formation (*saṅkhāra*) or ideation. That is, they form a thought which is consciousness, but do not singly constitute a thought. Thus, the distinction lies in this very process of evolution, and so it is rather premature to speak of the experience of thinking (*citta*) when thought is not complete yet. For, we are still within the process of formation (*saṅkhāra*)



of conception, which does not necessarily evolve into a full-grown conscious thought.

Moreover, the six groups: tranquillity (*passaddhi*), buoyancy (*lahutā*), flexibility (*mudutā*), efficiency (*kammaññatā*), proficiency (*pāguññatā*) and rectitude (*ujukatā*) are so unlike the earlier divisions into good and evil, lust and hate, fear or blame and sense of shame, that one looks spontaneously but in vain for a reason why these should have been introduced at all, and collectively at that.

The terms can be explained by means of an etymological dictionary, but even then, the difference between buoyancy and flexibility, between efficiency and proficiency, hardly warrants their introduction at this rather important stage when the formation of a mind in evolution is being discussed.

35-36. Tranquillity (*passaddhi*) of mental factors (*kāya*-) and of mind (*citta*-) reveals an unquivering dispassionateness, opposed to the immoral defilement of agitation (*uddhacca*).

37-38. Buoyancy (*lahutā*) of mental factors (*kāya*-) and of mind (*citta*-) provides the capacity for dealing with a situation very quickly, and is thus opposed to the immoral defilements of sloth and torpor (*thīna middha*).

39-40. Flexibility (*mudutā*) of mental factors (*kāya*-) and of mind (*citta*-) is a mental adaptability which opposes the moral defilements of wrong views (*ditthi*) and conceit (*māna*) which are forms of egotistic stubbornness.

41-42. Serviceableness (*kammaññatā*) is efficiency of mental factors (*kāya*-) and of thought (*citta*-).

43-44. [Proficiency (*pāguññatā*) is perhaps the expertise of the previous mental factors (*kāya*-) and thought (*citta*-). Without these no good result can be expected, and therefore these factors occur in any skilful, sublime or transcendental mental state.

45-46. Rectitude (*ujukatā*) is also distinguished as that of mental factors (*kāya-*) and rectitude of thought (*cittujukatā*). It gives proper direction to the concomitant mental factors, as uprightness of conduct and straightforwardness in behaviour. It abhors deception and craftiness, envy (*issā*) and meanness (*macchariya*).

If for the sake of better understanding we pair off the skilful mental factors of this group with the unskilful ones seen so far, we may get the following incomplete table:

passaddhi uddhacca-kukkucca mudutā diṭṭhi-māna lahutā  
thīna-middha ujukatā issā-macchariya kammaññatā vicikicchā

This leaves us with Pāguññatā ahirika-anottappa

but I fail to see either connection or opposition between shamelessness and proficiency; and so I leave this table incomplete, for anyone who wishes to pursue this diversion as a pleasant distraction.

Among the nineteen general lofty mental factors (*sobhana sādharma cetasikā*) which occur and combine in any skilful thought in any sphere of mental concentration and even in transcendental thought, we have come across several factors which are found in the suttas as parts of other combinations.

Thus, right intention (*sammā-saṅkappa*) of the noble eightfold path (*ariya aṭṭhaṅgika magga*) is said to be the same as initial application of mind (*vitakka*), which was introduced as a particular mental factor (No. 8). Right effort (*sammā-vāyāma*), also of the noble eightfold path, is the same as energy (*virīya*), another of the six particular mental factors (No. 11). Right mindfulness (*sammā-sati*) of the noble eightfold path is represented among the lofty mental states (*sobhana sādharma cetasikā*, No.29), as one of the skilful factors common to all that is good in thought and deed. Right concentration (*sammā-samādhi*), the final step on the noble eightfold path, is found as a general mental factor (*sabba-citta sādharma*

*cetasikā*) necessary for the completion of any thought, good or evil, as one-pointedness of mind (*citt'ekaggatā*, No.5).

The balance four steps on the noble eightfold path, namely right understanding (*sammā-dit̐thi*), right speech (*sammā-vāca*), right action (*sammā-kammanta*) and right livelihood (*sammā-ājīva*), could not be left out, and the commentator found a place for them among the general lofty mental factors (*sobhana sādharmaṇa cetasikā*) as insight (*paññā*, No.52) and as the three abstinences (*viratiyo*) in the practice of virtue, the abstinence of wrong speech, wrong action and wrong living, respectively (Nos. 47, 48, 49).

In the suttas also frequent mention is made of the four divine abodes (*brahma-vihāra*), the sublime states of loving kindness (*mettā*), compassion (*karuṇā*), sympathetic joy (*muditā*) and even-mindedness (*upekkhā*). But as two of those have already been mentioned as good-will or the absence of hate (*adosa*, No. 33) and as equanimity (*tatra-majjhataṭṭā*, No. 34), the other two have here been introduced as the two illimitables (*appamaññā*), thus called because their field is immeasurable in compassion (*karuṇā*, No. 50) and sympathetic joy (*muditā*, No. 51).

47. Right speech (*sammā-vāca*) is the abstinence from the fourfold misconduct of speech, i.e. from lying, slander, rude language and frivolous talk—the non-transgression with regard to them, and even ‘the pulling-down of the bridge’ (*setu-ghāta*) leading to them, i.e., the avoidance and destruction of their base and cause, like lust, hate or delusion<sup>16</sup>.
48. Right action (*sammā-kammanta*) is the abstinence from misconduct of body, i.e. from killing, stealing and wrong indulgence of sensual pleasure, the non-transgression with respect to these wrong conducts, and even the destruction of the cause-way leading thereto.

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<sup>16</sup>Atth S. II, vi, 1.

49. Right livelihood (*sammā-ājīva*) is the abstinence from wrong modes of livelihood. Livelihood cannot stand apart from speech and action, as it has no separate function, of its own. For, if livelihood is wrong, the evil committed is at the doors of body and speech; it cannot fail at the mind-door. Therefore, the indulging in hunting is both wrong action and wrong livelihood; to make profit from slander is both wrong speech and wrong livelihood. Abstinence from all this is then right livelihood.

Collectively these three are called the three abstinences (*virati*), because they form together the group of virtue which is regulated by the five precepts (*pañcasīla*), which are formulated as abstinence (*veramaṇī*). They complete thus the eight sections of the noble eightfold path.

Next, come the two illimitables (*appamaññā*) which are so called because they arise in an immeasurable field. Together with the absence of hate (*adosa*), which is loving kindness (*mettā*) and equanimity (*tatra-majjhataṭṭā*), which is the even-mindedness of a well-balanced mind (*upekkhā*), they form the four divine states (*brahma-vihāra*), the sublime states of a mind in absorption of the formless spheres (*arūpa-jhāna*).

50. Compassion (*karuṇā*) is a reverberation of the sorrow of others in the mind of the good, and a desire to remove from them harm and suffering (*ahita-dukkh'-apanaya-kamatā*). It is more than a simple desire, for it is derived from 'karoti', to act, which thus indicates its active assistance to relieve suffering. It is the complement of loving kindness (*mettā*) which is an active urge to bring about good and happiness. Thus compassion manifests itself in not-harming (*ahiṃsā*), while the suppression of harm is its consummation.

But compassion is no passion in the sense of ill-regulated, emotional affection, for it is based on understanding of the dread-

ful consequences of karma in the repeated round of rebirth (*Sam̐sāra*), which made even the Buddha tremble (*saṁvega*). It is this combination with understanding which prevents compassion or pity to become sentimentality. Thus, the Buddha in loving all, yet none with passion, had a heart 'cool with compassion' (*karuṇā-sītala-hadaya*).

51. Sympathetic joy (*muditā*) is the lofty mental factor (*sobhana cetasikā*), immeasurable (*appamaññā*) with regard to its field of object, divinely sublime (*brahma-vihāra*) in its nature, which rejoices in the good of others, thereby destroying all disaffection and envy. Where sorrow shared becomes sorrow halved in compassion, here in sympathetic joy a joy shared becomes a joy doubled. Sympathetic joy is not the same as pleasurable interest (*pīti*), which still may contain much selfishness and which may be even unskilful (*akusala*).

Loving kindness (*mettā*), compassion (*karuṇā*) and sympathetic joy (*muditā*) are expressed as three kinds of love, namely as active love, preventive love and unselfish love.

52. Finally there is insight (*paññā*), a lofty mental factor (*sobhana cetasikā*) which stands all by itself, because it cannot be brought under any of the four previous classes, viz. the general (*sādhāraṇa*), the particular (*pakīṇṇaka*), the abstinence (*viratiyo*) and the illimitables (*appamaññā*).

It is the third root of all good as the absence of delusion (*amoha*), which is discernment of the truth, the highest degree of knowledge (*ñāṇa*) of which three grades are shown as perception by the senses (*saññā*), conception by the mind (*viññāṇa*) and the full understanding and insight (*paññā*) into the real nature of things. This insight is, therefore, a kind of realisation which requires research (*pavicaya*), criticism (*vebhavya*) leading on (*parināyika*) to what promotes one's personal welfare (*attaḥita-paṭipatti*).

As a controlling faculty (*paññ'indriya*) it is a directive force leading on to the object, hence 'insight'. As the power of understanding (*paññābala*) it prevents wavering through ignorance and hence it is wisdom.

It is compared with a surgeon's knife by its cutting away all mental defilements (*kilesa*). It is also the dissecting knife of analysis, because as a factor of enlightenment it is the cause of investigation of the truth (*dhamma-vicaya*). But as there can be knowledge (*viññāṇa*) without insight (*paññā*), it is not a general mental factor (*sādhāraṇa*). It is mainly due to the absence of insight which is delusion (*moha*), that unskilful actions (*akusala*) are performed.

Such then is the detailed exposition of the fifty-two mental factors which may or may not combine in a single thought. It is this combination of factors which has given the name of complex (*saṅkhāra*) to this composition.

## Consciousness

What a house, a car, a beautiful wife, or a son to perform one's funeral rites, mean to a man in society, namely, esteem and security, that place is filled in the spiritual world by the assets of the mind, learning, virtue, merit. Basically there is not much difference, as both types perform the same function with the same goal: the firm establishment of the individuality which singles one out from the mass. As long as all effort goes into this search for self-expression, there will be no thought to spare on finding out the nature of this satisfaction. Then the need to apprehend will not even be felt, the need to understand the motives of one's actions.

Thus the mind strives for the development of virtue and classifies its mental states as general or essential (*sabba-citta-sādhāraṇa*), as occasionally useful (*pakiṇṇaka*), as beautiful (*sobhana*) and as

unskilful (*akusala*) and hence to be rejected. Thus, the mind is possessed with the classification of its assets, without which there would be no mentor to mind one's thoughts. These assets are rightly called mental formations (*sankhāra*), because they form and constitute the mind, its thoughts and mental states, just as clothes make the man, as wealth establishes his position, as learning gives esteem, as health gives power.

Classification comes naturally to a mind that relies on order and memory, without which one's thoughts could be rather chaotic. Classifying one's emotions as books in a library may have practical value for the purpose of reference, checking information, etc. But it is rarely considered why there should be so much of information, and all that. What would be one's position in a world of action if one had misplaced one's memory, the key to that store-house of knowledge? There would be complete unreliability, total insecurity and an absolute innocence, when facing even the smallest event with the impossibility of judging, comparing, accepting or rejecting. That seems bad enough. But why do we consider it bad, if we have to face a new situation, a new challenge with an immediate response? We are so accustomed to leaning heavily on our own experience (or rather on the remembrance thereof) or on those of others as found in books and other media of communication, that independent judgement has become extremely difficult. In fact, there is no judgement and hence no meeting of a new challenge, but only a reference to what has already been stored and classified by the individual, by society, throughout the ages.

It is, therefore, all-important to understand the working of this process of thought, the process of thinking, which is consciousness. 'Consciousness is only to be experienced, it cannot be known in itself apart from its working, because (being a process) apart from its working it is non-existent. It constantly arises and passes away with each thought. It is the totality, so to say, of our emotions, sensations, desires and other mental phenomena or properties (factors). As

those phenomena have no permanent existence but arise, change, and pass away according to circumstances, so consciousness itself is no entity which supports those phenomena. Thus consciousness is experienced as a continuous stream of successive mental states and this very continuity gives the impression of something permanent which, however, is mere delusion' (H. Lyster Jameson, D. Sc.).

In the main division of individuality we made the distinction between matter and mind, the material phenomena (*rūpa*) as the object and the mental reaction thereto (*nāma*) as the subject. The mind was seen as the subjective bending (*nameti*) and inclining towards the object with a purpose (*cetanā*) of gathering, absorbing, assimilating, grasping. To this process of mental activity, then, has been given the name of *nāma*. It is this mind which bends the object in reflection, in perception, in conception, till it is expressed as an object apart from the subject. Then this object becomes the subject, for it makes the reaction possible. The reaction is the result of the idea which is the formation, the concept, the will-to-become, to express, to continue as a memory of a past experience in the senses. The object makes the subject when the experience is conceived by the experiencer, when in reality there is no experience to be transmitted; and so there is no experiencer either. Only the process of experiencing, the process of bending, the process of reflection arises, and in its arising it also ceases, as the waves in the ocean. The process continues as a process, as a movement, as change, as impermanent, therefore. But that has no duration, and its continuance is only that of change. Such continuance cannot be grasped and retained, as long as there is no retainer. Only in retention can there be the estimation of value. Without value there is no purpose in retaining. Therefore, the bending of mind (*nāma*) has only one purpose (*cetanā*), namely to provide through memory the idea of the experience, a concept of an experiencer who is now in possession of the memory of experience.



Without this possession there is no memory of experience, and hence no experiencer. And thus the purpose of the entire exercise is to provide the opportunity for the arising of the concept of the individual, who can remain unchanged as the proprietor of changing conditions, the substance supporting the phenomena, the essence of existence, the soul of the body, the mind grasping matter. This bending and reflecting process, which is non-existent in itself, is now made into a spiritual entity, whereas the individual was only a process of change in becoming and ceasing. The individual process of action and reaction has been bent into an actor and a reactor. The individual process of the mind has become the individual thought, the mental action and reaction of a thinker.

Yet, there is no thinker apart from thinking; and thus the action has become individualised as thought (*citta*). There is no thought, but only thinking; and memory which retains thought is then the basis of the concept of the individual as the thinker, the actor, the soul, the substance, the absolute.

Then there is no perception which is not the act of perceiving; there is no idea, no concept, which is not the act of conceiving. A thought, an idea, a concept, is only as the individual wave in the ocean whose only existence is the movement of waving at the moment of change, of becoming and ceasing. It cannot be insulated or isolated; it cannot be retained as an individual, because it has no existence apart from the instant of movement. In that movement there is action, but the thought thereof is no longer the action but the reflection, when the 'I' as actor assumes the ownership of that action. It is then not the 'I' who, acts, but it is the thought of retaining such action which creates the 'I' in the reflection, which is the memory, the concept, the thought which continues the experience as an image, without being able to continue experiencing.

So, there is no mind apart from the mental properties, there is no thought (*citta*) apart from the mental factors (*cetasikā*). The factors make the thought, the reflections make the image, the concepts make

the mind. But the thought, the image, the mind, cannot have any existence, apart from the activity of the factors, the reflection of the image, the concepts of thought.

Mind (*nāma*) therefore, is the bending (*nameti*) of the reflection, just as light rays are bent in reflection. The actual reflection of an individual thought (*citta*) is the photographic still which has no movement of its own, but which is the retention in memory of a momentary experience which is no more. The analysis of that still has provided the idea of mental factors (*cetasikā*), but the only good it has done is that it has not discovered an identity in that action, no substance, no entity, no soul, but only the changing movement of mental forces, mental factors, urged on by willing, by a projection into the future by means of a retention of the past, but which find no foothold in the reality of the present.

Sensations (*vedanā*), perception (*saññā*), investigation (*santīraṇa*), determination (*voṭṭhāpana*) and registration (*tadālabhāna*) are not really part of a thought in analysis, but they constitute the process of thinking, when thought becomes consciousness (*viññāṇa*). The mental phenomena cannot be perceived, because perception itself is the phenomenon. The classification of sensation is itself a mental formation (*saṅkhāra*), that is, a thought in formation. Thus, fear or anger are not qualities of the mind, but it is the experiencing of fear or anger which are retained as memories, as experiences, which constitute the mind in the process of minding, of bending, of reflecting. Then the mind has no fear, but it is fear, the reflection, the reaction, the retention of a past experience, in which fear continues as a concept, even when there is no more actual experiencing. The resulting thought, of fear can be analysed, but that is not fear anymore. It is the memory of fear which can only show the conditions under which fear or anger arose, just as blood-pressure is only the determined result of the state of the body, of the brain, at a preceding moment, a condition which is no more.

Then, what is thought? We have followed the commentators in their attempt at analysing and classifying, which were often mere flights of imagination, which have taught us, however, the great truth that there are only phenomena. But those phenomena do not belong to the mind, they are but memory. The only analysis, then, possible, is that of memory, which is the retention of an experience of the past. Then, what is thought? Not thought as classified, but thought in action? What is thinking? Is it possible to catch a thought in action? If that were possible, there would be in that act of catching a thinker separate from the thought. But we have seen already that thinking makes the thinker.

Can we go on from here? What is the act of thinking? I am doing it now! What am I doing? I am actually trying to find an answer to this question. It is as if I have come across a new word, and I want to learn the meaning of that word. What do I do? I can analyse the word and check-up the derivation, for a word is not coined haphazardly, but meaningfully. If I do not know the meaning of the word 'ecology', I look it up in a dictionary and find that the word means the science (-logy) which deals with the modes of living in relationship to environment ('*oikos*' being the Greek word for house).

Now I have learned something by referring to a dictionary, which is a book of words and their meanings, compiled by experts in that field. What does that mean to me? I have learned something which was already known. I have added something to my store of knowledge, but I have not discovered anything new. I have not discovered my relationship to my environment. I have found the old and with the knowledge thereof I approach the new, but that has not given me any experience of my relationship with others which is in the present. And so, when I think, I go back to the past, to the store-house of past experience, to memory, and with that old thought as basis I try to build up new knowledge.

That is, of course, not understanding. It is only an explanation, such as hydrogen being the lightest of all gases, and the main component of water, but no understanding of its nature, its structure, its action. Even if I know it as a gas to be elastic, expanding, filling a vacuum, that is still knowledge which can be gathered from any book on chemistry or from an encyclopaedia.

Now, it is that knowledge we are in search of when we think. It is no basis for experience, therefore, when thinking is always a reference to memory. An experience is always a fresh encounter, and if that contact of the new is made with a reference to the old, there is no experiencing at all. And that is the function of thought as memory.

Memory and imagination are not so greatly different as might be thought superficially. Both are aspects of the process of ideation, of image-making, of thought-formation (*saikhāra*), even though imagination might be seen as pushing that process somewhat further into an ideal future. Memory is not merely the faculty of remembering. Remembrance needs an object, an event, of the past, and this object must be introduced into present thinking again. But when this object was contacted for the first time by the senses, it did not come alone probably, but in association with a host of other thoughts. Now, whenever one of those other ideas recurs, the associate idea might come along. Thus, memory is not some storing-up faculty, but rather a systematised form of dependent relationship. Thus, memory can be developed by finding some logical or pictorial connections. Early work in education is the establishment of association of ideas. This fixing of association is naturally helped by means of identification in which similarities are singled out and linked together. This sifting of evidence naturally leads to a choice of preference, and hence also of rejection, with the result that facts remembered are never of a photographic quality. The process of selection is at work all the time, and the image produced at the

end will be greatly bent and biased, which takes place in the mental formations (*saṅkhāra*).

Then, simultaneously, there is another process of formation at work, which is the imagination, a form of pleasure thinking. It is an effort to reproduce, to relive, to perfect and to attain the unattained. Its immediate effect will be, therefore, a sublimation of a natural conflict, an escape from the actual problem, a movement towards an ideal or conceptual goal. This takes place in many ways on many levels, in carnal desires, in emotional indulgence, in aesthetic pursuits, in intellectual research, in spiritual endeavour, all of which have self-satisfaction as their common goal. It is not only the stimulus of the physical senses seeking fulfilment, but equally the search for the abstract notions of beauty, peace and truth which propel the imagination. All abstract concepts are based on concrete images and thus all abstract striving has the same concrete goal of self-satisfaction. Beauty is only found in beautiful things, which impress, delight and gratify the senses. Truth is only found in the solution or absence of problems. Peace exists only in the absence of disharmony and conflict. And all have in common the desire for that supreme state of balance, where the 'self' cannot be disturbed in a perfect escape. Even the supreme states of mental ecstasy (*jhāna*) do not conquer but only put to sleep the hindrances (*nīvaraṇa*) for the time being. Thus, meditation, as long as it is concentration on a chosen object—whether a disk of clay (*paṭhavī kasina*), the perfection of the Buddha (*Buddhānussati*), or the sphere of nothingness (*ākincaññāyatana*)—does not provide a solution. With the help of imagination, however, it eliminates for the moment the obstructions (*bandhana*), the hindrances (*nīvaraṇa*), the intoxicants (*āsava*), the fetters (*saṃyojana*).

Essentially they are all narcotics, producing a state of insensibility to actuality, allowing imagination to build a new world of illusion and escape. We are all living in such a world of our own, and most of us are feeling happy therein, because there is no inducement outside

this sphere of fancy. And thus we rationalise our desires and actions, and raise imagination to the high level of ideal. But whatever name we give to this self-seeking process, the goal remains the same.

Now, if this process is not given an enhanced value, but dealt with at its own natural level, what do we see then? Then imagination must be seen as an illusion, as self-delusion. And to become free from that self-delusion (*sakkāya-diṭṭhi*), there is no way of self-absorbing concentration, but only the path of right understanding (*sammā-diṭṭhi*) which is insight (*vipassanā*) into the real nature of the entire process of living, of feeling, of thinking, of dreaming and imagining.

Only when imagination ceases they have the allurements of reality, when it is seen and understood as a mental play with all the passing beauty of impermanence, the unrealistic tears of a conflict which is but a tale, the voidness and unsubstantiality of the stage, only then can there be the realisation of the beauty of anicca, the truth of dukkha, the peace of anatta. And with that insight of realisation, the attachment to and the craving for the shadows of imagination will become meaningless. And that is the end of delusion and of self-deception. It is the enlightenment of Nibbāna.

Thus, memory and imagination, the past and the future, are the great contributory factors in this process of thinking, in the formation of thought, in the composition of the mind.

When the commentator equates citta with cetasikā, states the mind consists of mentals. And that is, of course, quite correct, but it does not add to the store of knowledge. Water is wet, and fire is burning. These are also statements pointing to some essential characteristics, and even more than that. Because wetness and combustion are so essential, that there can be no water or fire without them. Yet, in themselves they are just abstracts without any concrete existence; not even in thought, which is an interesting point to watch! The mentals are the factors which constitute the functional mind; they have no separate existence, and neither can the mind

exist or function without them. Such is the meaning of equating the mind (*citta*) with the mental factors (*cetasikā*). But it does not reveal what the mind is. If the mental factors; are mere abstractions which have no independent existence so is the mind an abstraction, which cannot exist beyond the conceptual stage.

The nearest the mind can come to actuality is the thought (*citta*) when the mind is considered the faculty of consciousness. This is expressed by the philosophic term *mano-viññāṇa-dhātu*, the element of the intellect in consciousness.

Consciousness (*viññāṇa*) is the culmination of the mental process in which the contact in the senses is perceived and reflected upon in the stages of sense-reception (*vedanā*), of perception (*saññā*) and of the formation of ideas (*saikhāra*). A thought (*citta*) is that consciousness (*viññāṇa*) fully developed, but still a process of thinking. This thinking is a reflection, a conception, an act of consciousness. Such act has no duration, no essence, no entity, for it remains a process of arising and cessation. The process is its existence, and without proceeding, i.e. without thinking there is no thought. Then, thinking is but the reflection on a past experience, the reflection of a memory which seeks to continue, as without the memory of experience there would be no thought. In actual experiencing there is no thought about it, there is no reflection, no separation of the act and the actor which can make an experience continue from memory to imagination, as an idea, a concept, an image, a reflection, which is never an actuality.

The commentators have distinguished seventeen moments within a single thought unit, from the simple awareness of a disturbance (*cālana*) at one of the sense-doors, as the first step of emerging from the subconscious (*bhavaṅga-sota*). This disturbance is followed by a specified awareness which locates the disturbance at the appropriate door as a visible shape, an audible sound, etc. The reaction that follows is the beginning of perception, when the sense-impression is being actively accepted by recipient or presentative

cognition (*sampañicchana*) without as yet being assimilated. Investigation (*santīraṇa*) of the object is a mere examination without passing a judgement.

It is the analysis before recognition. Only now comes in the determining or deciding factor (*voṭṭhāpana*) which establishes the received object (*vedanā*) which has now become perceived (*saññā*) by placing it in some class or definition, the work of memory, thereby differentiating it from others. This is the proper work of the mental formations (*saṅkhāra*), when ideas are shaped and concepts formed. Mental concepts in the full sense of apperception (*javana*) are the cognition of perception with reflection on the resultants. Where up to this stage there was mere knowledge, now arises the knowledge of that knowledge with an intentional interpretation of the impression so far perceived impersonally. It is this active consciousness (*viññāṇa*) in which intentional grasping (*cetanā*) of the object is the essential factor which constitutes kamma.

Such full apperceptive consciousness (*javana*), with a maximum of seven moments within this unit of thought movement, may be followed by identification and registration (*tadālamhana*), bringing the total of moments within this single thought-unit a maximum of seventeen.

The writing down of this analysis would have passed through thousands of such units, and its value is then purely academic, perhaps adding to the delights of an analytical mind.

The influence of Buddhaghosa on the development of original Buddhist thought has been so great that for all practical purposes his commentaries have assumed an authority hardly second to the sacred texts themselves. Whether this development has been one of greater perfection is open to serious doubts, but the undeniable fact remains that the current system of thought is entirely based on the explanations given in the books of the Abhidhamma and the still later commentaries by Buddhaghosa. He is no doubt the most famous commentator of the Theravada school, living in the



fifth century after Christ, which is more than 1000 years after the Buddha. Born in North India he was steeped in the Brahman tradition. Both the Yoga of Patanjali and the Sāṅkhya system were well known to him before he was introduced to Buddhist philosophy or Abhidhamma by Revata Thera, a Sri Lankan monk, whose disciple he became and on whose instigation he went to Sri Lanka, there to become one of the greatest celebrities of the Mahā vihāra in Anuradhapura, its capital.

There he translated many Sinhala texts into Pali, incorporating numerous traditional commentaries with a mass of legends and fables, folk-tales, history and biographical details. Whether his best known work, the Visuddhi Magga, is an original composition of his, remains doubtful since the discovery and translation of an earlier work, the Vimutti Magga, by the arahant Upatissa. The similarities of both works are too numerous and obvious to be incidental, or to be ignored.

Yet as things stand, we cannot ignore the authority of Buddhaghosa, as that represents the early tradition. But when the explanation of the tradition becomes dogmatic in its own right, one has to tread carefully while steadfastly holding on to the essential teachings as found in the suttas.

Now, the most essential characteristic of the Buddha's teaching is found in his doctrine of ego-less-ness (*anatta*). This uncompromising attitude is not found in any of the prevailing systems of thought, even when they deny the existence of an absolute beginning of creation, of an individual creator as the ultimate cause of the universe. It is not the existence of God-creator the need of which is felt in materialistic systems of philosophy, but the continuation of the 'I'-principle, which as soul or substance, is found basically in every form of religion; for without continuance there seems to be no ground for morality.

Thus the system of Buddhist philosophy, being basically a doctrine without entity, substance or soul, is then rightly seen as psy-

chology rather than religion. And as psychology its main concern is the mind. This is fully borne out in the suttas and in the various treatises of the Abhidhamma. In the basic formula of dependent origination (*paṭicca-samuppāda*) it is the physico-psychological combine of matter and mind which arises from the condition of consciousness (*viññāṇa-paccayā nāma-rūpaṃ*). Logically then it would appear that there is consciousness prior to the formation of the five aggregates of existence. Whereas viññāṇa is then the precursor of nāma, there is also evidence in the suttas where mind-matter is the condition for the arising of consciousness (*nāma-rūpa-paccayā viññāṇaṃ*).

And so, some clarification is needed in respect of the various terms for 'mind'. We have seen already the use of 'mind' (*nāma*) as the most general term, embracing the sensations (*vedanā*), the perception thereof (*saññā*), the formation into a mental image (*saṅkhāra*) and the conscious or intellectual awareness thereof (*viññāṇa*). Together and individually they are called aggregates (*khandha*) or 'heaps', whereby is indicated their nature of grouping in the sense of not having an individual existence. Each and all of them arise and cease, being conditioned in their origination and cessation on other conditions, but having one thing in common, that they are mental functions or associated factors.

It is their function which keeps them together in one process without an abiding and permanent entity. This is the process of knowing which develops from mere reception to perception and further to conception, which then gives birth to a full-grown thought.

Knowledge (*ñāṇa*) is a reaction of reflection, based on the past. Thus, knowledge is memory, is reflection, is reaction. It can be gathered, analysed, accumulated, stored, whereby it becomes the stream of experience, in which each event can increase the sum-total of experience, and in which store-house each event can be compared and classified, in order to be retained. This is consciousness (*viññāṇa*), which runs on without a break, a stream of identity without entity.

It is the aggregate or group of conscious thinking (*viññāṇa khandha*). It differs from mere perception (*saññā*), which is not thinking about its sensation. Perception notes the events, consciousness knows the events. The passing from cognition (*saññā*) to knowledge (*viññāṇa*) takes place through the formation of ideas (*saṅkhāra*).

In this formative process of ideation (*saṅkhāra*) lies the seed of individual knowledge which is thought (*citta*). It is in thought (*citta*) that the process of cognition becomes individualised, that an event of contact in the sense-organs becomes an individual experience, in which the mind (*mano*) separates itself from the process of cognition and sets up the individual thinker of the thought, the store-keeper of the memory, which enables cognition to be recognised. Consciousness, thought and mind are the same in meaning<sup>17</sup>; their functions however differ in the various aspects. Thus, thought (*citta*) is the mind in action through the mental factors (*cetasikā*); as synthesis and judgement (*mano*) it measures in memory and comparison; as intellect (*viññāṇa*) it is the consciousness which discriminates in awareness and understanding. Thus, perception alone cannot penetrate, while consciousness can see the characteristic differences. This consciousness is the intellectual approach as guided by sensation, perception and ideation, but is not the intelligence of insight which is the culmination of wisdom (*paññā*).

Insight (*paññā*) is the perfection of understanding, is comprehension of the entire process of the mind. This penetrative insight is often called the knowledge and the seeing of things as they are (*yathā-bhūta-ñāṇa-dassana*). This is not the analysis of the scientific expert who experiments with the various reactions, which enables him to understand the composition of the material in hand, the intrinsic composition and faculty of combination. As a biologist he may see for himself not only the various organs which are the instruments of life, but even those organs in action and their reaction to artificial stimuli, etc., just as a physicist can follow the reaction of

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<sup>17</sup> *Cittam iti pi mano iti pi viññāṇam*, S. II. 95.

certain acids on metal, their expansion under varying temperatures, their intrinsic changes from solids to liquids and gases. All that is knowledge of the intellect, but not the comprehension of intelligence.

Knowledge can be increased, as it can be stored, in books and other means of communication, or in memory in each individual. The value of such knowledge can never be estimated too highly, for on such knowledge depends the progress of living, the overcoming of obstacles thereto, such as illness and poverty. But, however advanced in technology, in medical sciences, in economy, such knowledge can only deal with the symptoms of life, of living, of conditions, of phenomena. It is not the knowledge of insight (*ñāṇa-dassana*) of action, but only knowledge of reaction.

Insight arises not through increased knowledge of symptoms, which knowledge is the answer to the question 'How?', which is technology. Insight goes much deeper than the symptoms by understanding and comprehending why there are such symptoms at all. The answer to this question 'Why?' is not to be found in a law of cause and effect, of conditionality, of relationship. It cannot arise through analysis or probing the composition of phenomena, as we have done up to now, analysis of the mind in mental aggregates of sensation, perception, ideation and consciousness, analysis of mental formations in good and evil, in greed, hate and delusion, analysis of thought in mental states and mental spheres, analysis of combinations and mutations, of dependent origination, relationship and cessation. All that is knowledge but is not insight.

Insight has nothing in common with knowledge. Knowledge, how things have evolved in the past, or how they will evolve in the future, is technical. Insight is only of the present, of this moment, and sees things as they are now. But the things which are now are not the data of nature in which we live and commune, for they too are still observations of the techniques; they are experiments and experiences, the memory of which is the image we analyse and classify, in the same way as the philosopher has analysed thought into

reception, perception and conception. Such analysis is never of the moment now, but of the moment past, as it was caught by volition and fixed down by memory for further study under the microscope of thought. Such study can provide many data of structure, colour, weight and shape, data which can be classified, compared, explained, but which cannot provide insight.

The reason why knowledge cannot provide insight is that knowledge sets out on a different track of discovery. The discovery of insight is not with a purpose of achieving or accumulating, of gathering or collecting, and thus it is never of the past as memory, never of the future as imagination. Insight is in what is.

When there is the stimulus of contact in sensation, when the reaction in the senses is perceived, when perception is seen to divide itself into the actual and the ideal, when mental formations are understood as image-making, as builders of the image and of the concept of the creator of that image, the 'I'—when the 'I' is seen in formation, in projection, in reaction, then there is no analysis, but a direct and comprehensive insight into the entire process. Then there is no observer who follows the experiment of analysis, then there is no searcher for an ideal truth, then there is no memory of past experience, but only a watchful intelligence which does not guide and is not guided, which does not hold on to classified prejudices, which does not preserve in pre-arranged pigeon-holes of memory, which does not analyse and judge according to laws and standards of faith and morals. There is no observer of the observation. There is just observing, watching. Not a watching of the chicken coming out the egg, but the watching of the reaction thereto in what is thought to be the watcher.

To comprehend and see things as they are (*yathā-bhūta-ñāṇa-dassana*) has no objective field with a subjective observer. The field is the watching itself. Then there is no experience and no experiencer, but only experiencing. In the fullness of experiencing, whether that be love or hate there is an immediate and direct re-

alisation which has no relation to either subject or object. In that complete realisation there is therefore no opposition, no ideal, no rejection, no desire to achieve, no will-to-become, no conflict, no 'self', no 'I'. Such is insight (*paññā*) into what is. The hate is seen as hate, not as 'I hate'; and then hate is meaningless and so is selfish love, and striving for virtue and learning. Then memory is just a trick to uphold that delusion; then ideals are just projections to secure continuation. Then the only thing is now, as it passes, as it changes, as it arises and ceases, as it is being born and passing away, the eternal now in a constantly new creation, which must pass immediately to become the next moment, which is now and new. This insight is the experiencing of what is. In that experiencing there is no room for anything, because there is no thought, no consciousness, no mind, no experiencer, no 'self'. That is the insight of the real, which is free from the ideal; and in that freedom there is deliverance.

Consciousness (*viññāṇa*) is thought (*citta*) as the culmination of the process of evolution which began in the material senses contacting the objective world of phenomena. It was not the world which was sensed, but the phenomena as received in the senses. This sensation was perceived and that was the reaction which in this process of grasping began to classify, to memorise, and to retain the reaction which is memory. The classification of all these memories, their retention or rejection, started the process of selection, of division, the formation of the 'self'-concept as the owner of all that property, the 'I' that was, and the 'I' that will become. With the introduction of the will-to-become this became a process of building up the 'self' in isolation and opposition, in attraction or love, in rejection or hate, but always the 'self' in conflict. And that is thought which grasps to continue, which resists to exist, which projects its ideal to protect its impermanence. Thus, passing sensations (*vedanā*) become reactive perceptions (*saññā*). And they in turn become the ideal formations (*sankhāra*) in the thought (*viññāṇa*) of 'self'.

A release (*vimutti*) of this self-concept is therefore only possible in the cessation of this process of self-consciousness. Many attempts are made to attain this cessation, through discipline and virtue, through mind-control and concentration, through transcendental meditation, through sublimation and unification of the individual with the absolute. They are only attempts at giving permanency to the impermanent, substance to the phenomena, a thinker to the thought, a soul with everlasting life to a process of change, a super-soul to fleeting thoughts, a God and a goal to that which only is now, which never was and never will be.

Cessation of consciousness is the cessation of 'self' consciousness; and it is in ceasing now. In ceasing now there is living now in full awareness of what is without expectation, without intention, without retention, without hopes and hence without fears. In this single moment of awareness here is no clinging and no craving for either past or future; but here is only the experiencing of total freedom in unattachment, the experiencing that there is nothing else. That is the void of 'self' (*anatta*), which cannot strive, but only experience without thinking about it, that release from delusion which can never raise its head again, and which is, therefore permanent, the cessation of 'self' in the deliverance from 'self'.

In perception there is not only the sense-reception of the organs of the body, but there is the beginning of a separation between the subject who is the experiencer and the object which is experienced. It is the beginning of 'self'-consciousness, which is an attempt at objective verification of a subjective experience. This attempt at knowing what is going on has already the germ of the will to understand, to grasp, to retain. It is the beginning of the process of conversion of knowledge into 'self'-consciousness, for it is in accumulation of perception that memory evolves; and memory is the collection, the recollection of the past, brought into the present to construct the future. Such is the concept of 'self' which must seek continuation in order to exist. In this search, then, there is the be-

ginning of the split between a subject who is the searcher, and his object which is the goal of the search. Such separation is obviously an opposition: what is, wants to become; what ceases, wants to continue, in grasping what is passing.

That is the function of perception resulting in a conception, the concept being the thought of 'self' as the thinker, the actor, the experiencer, the projector in opposition to whatever makes that 'self' grow in absorption, or decline in rejection. And so, this opposition between 'self' and 'other' is the conflict which is created by the will-to-grasp in order to become. This differentiation was fully worked out in the mental formations (*saṅkhāra*) of which so much, too much, has been said.

Already in the initial perception of a receiver of experiences there is therefore a differentiation with a purpose. Only in differentiation is it possible to distinguish a 'self' from non-self. With 'self' as the goal, the conflict with non-self becomes a necessity. If Kant had thought of this, he would have made this another one of his categorical necessities. But that would not have saved his philosophy anyhow, for the conflict is only necessary for the projection of a 'self' in which the 'I' can continue. For the 'I' to continue, conflict is a necessity.

But is it necessary to continue a delusion? This too is a perception, not the simple perception or reaction to a sense-impression, but the perception which is insight, which is the comprehensive understanding of this entire process of grasping (*upādāna khandha*). Perceiving a perception as a form of clinging to a sense-experience is a perception without conception, without ideation, without motivation, without a will-to-become which is the basis of mental formations (*saṅkhāra*), of wishful and wilful thought (*cetanā*).

Thus we have two kinds of perception. One is often equated with memory, when mindfulness is directed to the past with clinging, and then becomes recollection (*smṛti*), memory, by means of which the 'collection' of past experiences becomes 'recollection' to



continue in the future. The other type of perception has nothing to do with recollections of the past, but is a direct awareness of the process of receiving (*vedanā*) and perceiving (*saññā*) in the present moment. Seeing the working of the mind, that is thought-gathering from the past and projecting into the future, it is not interested in the object of thought, but is the functioning of thought. Perception then can see itself as in a mirror, when its actions are seen as reactions. Without selection there is mere reflection; and in that reflection the perception which is memory is seen as a reaction to the desire-to-become, the will-to-be, even the need-to-project; for it is through memory as will and volition that the past becomes the future. This perception of intelligent awareness of the present in the present has neither roots in the past, nor branches in the future. It is a direct awareness of what is, which sees and understands what is. It perceives thought as recollection and memory; it sees the functioning of 'self' as maintaining that concept in projection. In other words, it sees the past as past, and the future as future. Discarding both, there is awareness in the present, which is perception through mindfulness without clinging or grasping, without rejecting or projecting.

When speaking of perception, is that not a thought which cognises the fact that one is aware? In other words, is there a mind which perceives thought, which is aware of thought? When such concept arises, there is again the division between thought as the thinker, as the subject that thinks, and the object which is now thought itself. It is the most subtle division which the 'self' can bring about in order to rescue whatever has remained of that concept of a 'self' without which there can be no continuance and hence no security. It is this division which has created various concepts of some spiritual entity, consciousness in many layers, super-mind, super-soul, concepts of the absolute. But an absolute which can be conceived ceases to be absolute; either it is a relative part or aspect which is partial, incomplete and hence not absolute; or the concept

itself is absolute, in which case it cannot be individual as a thought naturally is.

Thus, the case of mind versus 'Mind' is not much more than a delusion, similar to the ripples on the surface of a pond. Illusion sets in the moment when thought (as a wave, a ripple) is considered as a separate entity, instead of seeing it as a momentary disturbance. But the mind would not let it go at that. If thought is a disturbance, a ripple, then what is it that is disturbed? This is merely pushing the question a step further back. The disturbance, the ripple, is not a property of the mind, of water, etc. It is the condition of its existence. There is no disturbance, no wave in itself of which the mind can dispossess itself, which can be dissociated from the water. The mind does not have thought; it is thought, the process of thinking; and there is no thought apart from thinking. In this process of thinking there is no thinker who can be separated from this experience: the thinker is thought and thinking, all in one process. Subject, verb and object cannot be separated without losing all meaning within one sentence. Just as movement is an optical illusion if seen as the movement of something, so thought is a mental delusion if seen as an object of a separate thinker. It is thought, the delusion in thought, which creates the thinker, who has no existence apart from thought which is thinking. Thus, there is neither thought nor thinker, but only thinking.

To see the mind as an entity which has thought is, therefore, the basic delusion which underlies all thoughts of space and time, of duration and extension, of movement and existence. They are the concepts which keep a thought alive in memory, which project such memories as ideals into the future, where alone continuance may be expected.

To be aware of this entire process is not a new thought which could liberate the thinker. It is not a thought at all; it is rather the cessation of thinking which reveals what is, which shows delusion as a delusion, whether we call it 'mind' or 'Mind', soul or absolute.

There is no awareness of being aware, for that would be the delusion of 'self' in action, a reflection, an idea, a concept, a mis-concept, created to give continuance to an experience which is already gone and is only a memory. Experiencing is not thinking about an experience, for in experiencing there is no reflection of memory, no projection of ideals, but there is the experiencing of the timeless, of the speechless, which is not related to a concept of 'self', and which is, therefore, neither thought nor thinker, a passive perception in total awareness.

The change from active perception to passive perception, from consciousness to understanding, from sight to insight, can such a change be produced? There are (I am told) various drugs which are reputed to be conducive to spiritual experiences. It all depends, of course, first of all on what is meant by 'spiritual'. If that is correctly understood as something transcending both the material and the mental reactions as we have if been considering all this time, I am afraid that there is a serious break-down in communication. The mind cannot transcend itself by any kind of activity, just as no one can pull himself up by one's braces. There are means of jumping over a hurdle, by using the leg muscles or a vaulting pole; or even by pulling oneself up by means of an overhanging rope or branch.

For the acceleration of the mind's work, too there are methods of concentration (the method of a mental high-jump), or means of external instruments which prepare the mind's if outlook by means of induction, some of which are said to be harmless in the sense of non-habit-forming, while others produce a continued dependence thereon. Heroin and opium are universally said to be habit-forming with harmful effects, with serious mental disturbance, and diminished responsibility. In that sense they may even be called toxic and poisonous. There are other drugs, (or shall we call them chemicals) conducive to experiences, akin to a change of consciousness, which seem to operate upon the nervous system by reducing some of the more common inhibitions. Mescaline (a synthetic decoction from

the Peyote cactus, found in Mexico) and LSD (lysergic acid diethylamide, a synthetic chemical) may make one's experiences rather psychedelic and out of the usual, which is not the same as 'transcendental' and more akin to hallucination. But then hallucination too is the work of the mind. What actually happens is a suspension of normal interpretation and evaluation, resulting in a self-projection of sensations, perceived, or rather conceived, as a mystical experience. Such experiments may be useful to a so-called creative artist. But if the result of such experiment remains exclusively subjective, as when the experimenter is not able to communicate his experiences in tangible or understandable forms, they do not essentially differ from the biblical gift of tongues, the speaking in an unknown language, which was roundly condemned by the apostle Paul on the ground that it does not serve any purpose if it is not understood. On the other hand, it is this meaningfulness of experience which tends to introduce a purpose in action. And a purpose is a mental projection for continuation. An action is performed with the purpose of achieving its result. The result, however, was envisaged and projected into some future for purpose of continuance. Now, if that is truly seen and understood, namely, that a purposeful act is the reaction of a purposeful thought (*cetanā 'ham bhikkhave kammaṃ vadāmi*), the very projection of a 'self' is then serving the purpose of continuing that which has no existence, a thing which no sane man would do.

Then, thought which is knowledge is the obstacle to understanding which is insight. And inversely, insight arises when thought ceases. Thought is a reaction to perception by forming it, shaping it, covering it up, whence it is called an obstruction and a hindrance.

In a state beyond the highest trance (*jhāna*) which is the stoppage and cessation of all perception and sensation (*saññā-vedayita-nirodha*), there is a total absence of the manifold thought-projects and of the reflections in memory. Thus, there is neither hope nor fear. Does that mean that there is no consciousness? As long as

consciousness is a built-up process of mental formations (*saṅkhāra*), it may have surpassed the reactions and reflections of the physical and mental senses, but there is the knowledge (*viññāṇa*) of the 'self'-formation or ideation, which is the view (*diṭṭhi*) of a 'self' in different aspects of attainment, achievement, acquisition. Such self-consciousness is not a sensation, not a memory, not a reflection, not a reaction, but just the concept 'I have attained'.

That is the perverted view (*vipallāsa*) of an interpretation of the experience of cessation of sense-perception. It is the view of permanence in the impermanent, of satisfaction in attainment, of stability in conflict, of 'self' in the void. As a perverted view, it is a view in the wrong direction, a reversal of the truth, or misunderstanding.

But when consciousness is not the knowledge of built up mental formations, leading to perverted views, it is mere awareness of what is, which is no longer an interpretation of what is received in the senses, or perceived in reflection, or conceived in ideation, but a direct awareness of insight, without comparison, without classification, without naming or appropriation. In such awareness there is no reference to 'self' and hence there is a cessation of perception and sensation (*saññā-vedayita-nirodha*). It is not an attainment of the 'I', for there is no thought-reference to 'self'. It is pure awareness which had uncovered the process of interpretation, and is free from views, which have been overcome (*atikamati*) in the realisation of their voidness. It is the awareness of the absence of a dream, the realisation that there is no darkness, penetration into what has no substance. It is insight (*paññā*) with the absence of perception (*saññā*) and of thought (*viññāṇa*).

The active thought is a searching mind; it is purposeful thought; it is concentration on the object; it is motivated by the wish to obtain the object, to control it, to possess it, to enrich the self-centred mind. This activity may be mundane as the acquisition of wealth, a search for an opportunity to find security. It may be less material, but not less mundane, as a search for power, for influence,

to control others, and thereby find security in the support of others. It may be even transcending the mundane in search for spiritual power, enhanced respect from others through spiritual attainment, external renunciation, a practice of virtue and concentration.

It is no good pretending that virtue can be practised for the sake of virtue, for that will be the striving for an ideal which is still rooted in a concept of perfection, a search of the 'I' to become perfect. Even the practice of concentration is centred on the object of a choice which still is based on the 'self'.

It is the 'I' which is always in the centre of the active mind, even when this action is motivated by the ideal of liberation of the mind.

The mind in search of freedom cannot be free, cannot be freed, cannot make itself free, as long as the active search for an ideal continues. As long as the mind is actively engaged in a search, it is bound by that ideal object and cannot be free.

Obviously, therefore, the active search has to stop, the projecting thought has to cease, the active mind has to be silent. One sees and understands the need and yet the first question is: How? But that means that the mind is not silent, but wants a substitute, a method how to acquire freedom, an ideal how to become silent. Then silence is the ideal and the mind will begin striving for the attainment of that goal. But, in that striving there is no silence, and the more action there is, the less silence, the more projection of an ideal, the less understanding of the actual.

If, in order to understand, the active mind has to cease, this cannot be brought about by more action. When that is truly understood, what will be the immediate result? Cessation of action, of thought, of will. One cannot will non-willing. Then volition stops, then striving ceases, then action is passive, then thought is no longer an active mind, for then the mind is a passive awareness. When the desire for a search arises, it will be seen as a motivated action, and thereby cease. Consciousness will not become unconscious, but in ceasing to search for a solution, for acquisition, for continuance,

there will be a passive awareness in which striving is impossible. In seeing things as they are, they will cease to become instruments of attainment. When the false is seen as false, there can be no further search for the false. And when the false is understood as false, there is understanding of what is true. Truth is not satisfactory, is not a gratification of a deluded 'self', but with the cessation of the deluded mind, which is the active mind in search of 'self', there is the end of striving to become. And with the end of striving to become, there is just awareness of what is.

It is not the 'self', who is aware of his thoughts. If such thought arises, the passive mind will be aware of it, not with a purpose of suppressing it, or overcoming it in sublimation, but just a conscious awareness of this activity, of this purposeful, volitional activity, striving to establish a hegemony of thought over that of passive awareness. It is no effort which brings about this attentive awareness which has no specialised object of concentrated thought. It is attention to whatever arises, while without judgement of condemnation or absorption there is a pure and direct understanding of what is. And if a thought arises of being a spectator, that too is accepted without condemnation, but seen as an attempt of the deluded mind to seek a foothold for the continuation of the 'self' as the observer separate from the observed, as the subject independent from the object, as a thinker who has thoughts which he can regulate, develop and discard.

In the absence of passive attention there is no opposition because there is only attention to the act. Then it is seen that there is no separation, and hence no opposition, between an actor and his action. The thinker does not have thoughts, but there is only thinking, just as there is only the action of walking, sitting, eating, etc. It is the walker who is walking, who is not the possessor of that action, but whose existence is in the action, in acting. And with the cessation of that action, there is no continuation of an actor who is acting, because there cannot be an actor who is not acting. With

the cessation of thought, there is no thinker. The concept of an individual continuing separately from his action, thought or deed is then seen as a delusion. In the understanding of that delusion, there is no delusion any more. To see the false as false, that is truth.

Is it difficult to be passively aware? Is that still consciousness?

There is a deep insight which is not knowledge gathered through learning, logic and experience. It is that insight which I call intelligence, because it cannot be cultivated: it is seeing into the matter rather than looking at it. When one looks at an object, a person, an event, there is the inclination to understand what it means. This attempt at understanding is brought into action by comparing the new with the old, the unknown with the known. The known is the memory of past experiences. And so, the attempt at understanding is an attempt at collecting a new experience, classify it through comparison, and then retain it in memory. The total of those experiences is the 'I', the collector, the experienter.

But it is possible at the moment of a new experience (and that is every moment!) to see the new, not as a form of the old, but as the new; not for the sake of collecting a new experience for the 'self', but for its own sake, as it were, for the sake of understanding. This happens when the new is totally new, when the old mind has no recollection for purpose of comparing. In such confrontation with the new there is only interest in understanding. Whether it is desirable for one's collection may come afterwards, but at that moment of contacting the unknown there is no comparison possible, and thus the 'I' has not come into operation. Then there is a direct contact which is communion, when there is no purpose of retention, but just the challenge of the unknown. In that contact there is no knowledge, because there is no memory and no 'self'. There is just the challenge of the unknown which awakens intelligence. This intelligence looks at the new without prejudice, without purpose of exploitation, without desire of acquisition. Such intelligence, being free from the 'self', is then free to understand in experiencing without knowledge.



It is a passive state, because there is no active going out towards a goal. And yet, there is complete awareness, because there is no distraction of purpose, no cleverness of deduction, of knowledge, of memory. Then there is no thought about it, no attempt at retention in memory, no desire for continuation for satisfaction.

Such intelligence is experiencing at the moment that which is, and is not dependent on education. In fact, education is being prejudiced, is being conducted along fixed paths of morality, tradition, religion, thinking and acting. And such prejudice prevents freedom. But intelligence is an awakening from all that; and that is the freedom of insight, which is not an object of search, of desire, of a goal. It is being free from all that, it is being free from a self that wants to become free. It is freedom from ideals, from projections, as well as from attachments and memories. It is not a free thought; for there is no thought. It is not a liberation of the 'self', but an awakening

of intelligence which sees what is; and in seeing what is, also sees what is not. And that is deliverance. That is consciousness (*viññāṇa*) which is intelligent awareness (*sati*), which is passive alertness, which is mindfulness, which is insight (*paññā*), which is contemplation (*vipassanā*).

In active consciousness there is the formation of concepts (*saṅkhāra*), ideas which are based on sense perception (*vedanā*, *saññā*), which are the purposeful reactions to physical stimuli, which are wilful projections (*cetanā*) having in mind but one object: the continuation of the 'self'. It is the thought that seeks, the thought that conjures up the image of the goal, the thought which is the idea striving to become the ideal which is the 'self'.

Any attempt at conceiving this active consciousness is but the outcome of this wilful striving to become, to continue, to exist. It is the 'I'-delusion which wants and which must persist in its wanting, in its delusion, without which it cannot exist. To see this process of delusion, of projection, and not to escape from it in a supreme image of a super-self, of an absolute, of a permanent soul, of an

eternal God—that unclouded insight is to be free from it all. Then detachment is not renunciation, but liberation. Then understanding is not knowledge, but insight: how could it ever have been possible not to see this? How could the mind ever been so blind, so ‘self’-bound, as to create an image, a reflection, a concept, and even to adore that as the real, as the permanent, as the ‘I’, so as to continue where there is only change, so as to build up resistance when there is only the flow of existence, the process of evolving which is involving, the flux of birth which is death, the movement of becoming which is ceasing.

It is in active consciousness that there is desire for becoming, clinging to existence, craving for being. It is in active consciousness that there is projection of an image into the future, an image called up from the past and dead memories, an image which is dead because it never existed, because it was never born. But it is in passive consciousness that there is awareness of this image-making process, understanding of the nature of this ‘self’-creative delusion of a permanent entity, of a basic substance supporting all phenomena, of an eternal soul which alone can conceivably continue as a spiritual essence, just because it has no existence. In that awareness there is enlightenment, which sees what is not. To see in experiencing that there is no experience and no experiencer, to be intelligently aware without thought that there is no thinker, to act intelligently without conflict between an actor and his action, that is freedom from thought as memory, from concept as ideal, from desire as projection.

In love, there is no lover, for with the thought of ‘lover’ (= I am in love) there is the thought of ‘self’ which is not love, but which is conflict. Loving is not the thought about love, the concept of a lover and the ideal of love. So, in freedom there is no one to be or to become free. Freedom, deliverance, is not a state of being free in which a ‘self’ finds itself delivered. Freedom is to be free from the delusion of ‘self’, deliverance from ignorance and conflict, which never were, because there never was an ‘I’.

The awareness of the immediate is an experiencing which does not come through the senses. In that understanding there is really no sensation at all, and yet it is experienced so immediately, so independently, so obviously that there is no thinking about it. It is not a subconscious feeling, not an incomplete perception, not an unconscious formation of ideas, not a conscious concept. There is nothing about it, no memory no reflection, no relation, no comparison, no analysis, no grasping, no retention; in fact, there is nothing pertaining to 'self', or to 'I.'

It is an experiencing of insight in which there is only awareness of the immediate, without fear of the past, without hope of the future, without concept of the present. It is an ecstasy without emotion, without joy or bliss, an ecstasy of relief, of freedom, of deliverance, of the real, in which there is no ideal; an experiencing of freedom from all burden, not because the burden has been discarded, but because the nature of the burden has been discovered as a delusion, because there is no bearer of a burden. The bearer is lost and hence any interpretation of that freedom is unrelated, and hence misleading and unreal. Even a description of the experience is but a vague and incomplete memory, in which the 'self' revives itself. But that is not experiencing. Description of a memory cannot be without 'self'-reference, for it is in memory that there is perception of the past which is no more. The hankering for bringing back an experience of the past is a new act of craving when the 'self' in delusion wants to relive the freedom of no-self. That can only lead to conflict, and more conflict.

Only in awareness of the immediate there is freedom, even when the immediate is an awareness of conflict. For, in awareness all conflict disappears as non-real. In awareness there is no desire for the ideal, as the actual desire dissolves in awareness which is the realisation of the non-nature of desire, of the non-nature of 'self'. This realisation of the void of conflict (*dukkha-anatta-saññā*) is a total perception in awareness without ideal, without image, without

thought, without desire, without memory. Such total perception with penetrating insight gives a clarity of understanding which is comprehension without logic or knowledge, which does not allow any doubt in the presence of what is now. Ecstasy may pass, and with it the sense of bliss, but the penetrating insight which has once seen and understood the nature of conflict in impermanence (*anicca-dukkha-saññā*) cannot be deluded again in ignorance, in self-protection, in self-projection. Then, impermanence is freed from the desire to attain the permanent, and in that freedom there is no more conflict because there is no more 'self'. It is the reality of the void of 'self' (*anatta*).

This clarity is the awareness of this reality which has lost all abstract values. Thus there is no more an experience of the riches of a spiritual life, no more an experience of having deposed all burden of possession, for neither spiritual wealth nor material poverty have any meaning in the awareness of the freedom from 'self', which is not an experience to be remembered, but to be experienced over and over again, always new, always fresh, always free.

These are not mere words to be repeated, not mere thoughts to be put into words, not mere memories to be put into thoughts. For there is an experiencing without words and without thoughts, when there is no memory of the experience, when the active thought has yielded to a passive experiencing without anticipation of a goal, without being moulded into mental formations, without being guided by ideas, ideals, concepts or principles. That, of course, is an experiencing which cannot be communicated. But then, is there anything one can communicate without that being shaped in the new receptacle, conditioned, dependent both on the old memory of the past experience and of the new vessel of experience into which the old is being shaped and projected?

Thus, there is only the actual experiencing in the present in which there is no reliance on the past and no projection into a future, which is not the experience of a 'self', an observer, an ex-

periencher. Those are mental reflections of an experience which is no more. In experiencing there is seeing and understanding even of the false as false, of the 'I' as a delusion. And in that experiencing, thought stands still, without the formation of concepts, without the perception of an observer, without the gratification of the senses. In that passive awareness which can come only in a silent mind, there is the direct experiencing without conflict, without desire for possession, without clinging to memories, without aim or purpose, without will or volition. Such a silent mind is open and unprejudiced, unconditioned and hence not related to knowledge. Then there is insight without reflection, without obstruction, which alone can give immediate and complete understanding.

From such understanding, which is comprehension, which is insight, there follows immediate action which knows no goal or purpose, but only the necessity of action without choice, just because there is the perfectly clear understanding of the need for action, which has no greed for achievement or success, and which, therefore, does not lead to reaction beyond the deed. When thought does not produce a reaction, then the mind is still. When action is not a reaction, it is pure and selfless. Then there is no actor, no projector, no subject as the door, no object as the goal, but only the understanding of the need for action, when action is needed, insight which does not argue about right or wrong, comprehension which cannot choose because it understands. That is the perfect understanding which sees and knows, and is free.



# About the Author

Henri van Zeyst was born in Utrecht, the Netherlands, in 1905. Educated throughout in Catholic schools and colleges, he spent his final years of studies in philosophy and theology and his first year his priestly ordination in an Italian monastery near Florence. At the age of 31 he was sent to London to be in charge of a new foundation of his Order, where he was also teaching Dogmatic Theology to the scholastics of Christus Rex Priory in North London. An intensive course of comparative religion brought him in contact with Buddhism. Within a year of his coming to Sri Lanka he was ordained a Buddhist monk there in 1938 under the name of Bhikkhu Dhammapala. From 1956 to 1968 he worked at the Encyclopaedia of Buddhism at the University of Ceylon in Peradeniya of which he was in the final years of that period the Senior Assistant Editor and Administrative Officer. During the last stages of his life he was residing in a meditation centre at Nilambe, Kandy, giving instructions to those who came to him for guidance on meditation.

He died on 15 September, 1988.